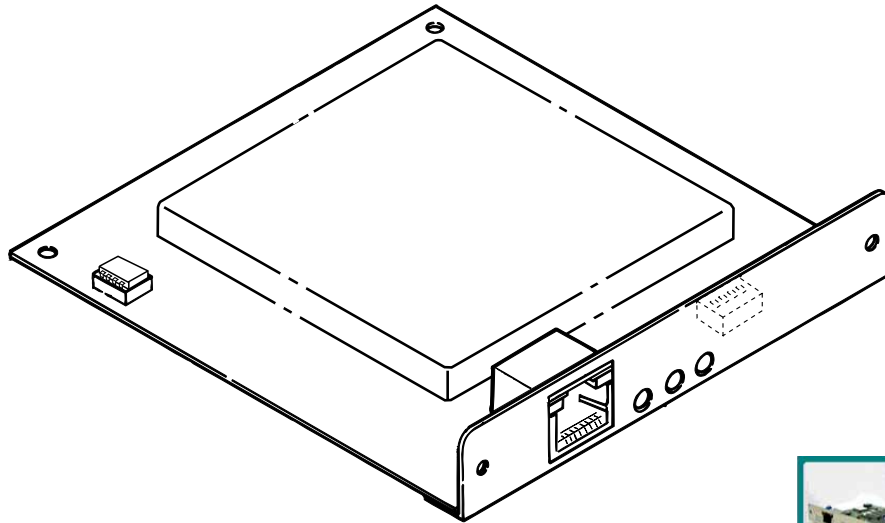# *Fast Ethernet* *7100e+*

User Manual

To start

Thank you for purchasing the Fast EtherNet. This manual explains how to set up the Fast EtherNet and connect it to the computer. Please use in conjunction with the User Manual.

Voluntary control on interference to radio communications

> 📄 *This equipment is a Class A information technology equipment, which complies with the standards of VCCI. Interference to radio communications may occur if this equipment is used in a residential environment. If this is the case, the user is encouraged to use the appropriate measures [to correct the interference].*

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

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Explanation of symbols in this manual

Note✎ *Notes and restrictions concerning the correct operation of the Fast EtherNet. Make sure to read them in order to avoid incorrect operation.*

MEMO
✍ *Useful tips and references for the operation of the Fast EtherNet. Recommended to read.*

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    (2) All the copies of the software and documentation are transferred to the above-mentioned third party, or all the copies which were not transferred are destroyed.

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    In addition, it is forbidden to rent, lease, distribute, reproduce or transfer the software.

    The customer agrees not to ship, transfer, export or re-export the software out of Japan and not to use it in any illegal way.

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C E

This product complies with the requirements of the Council Directives 89/336/EEC and 73/23/EEC amended by 93/68/EEC on the approximation of the laws of the member states relating to electromagnetic compatibility and low voltage.

English

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Chapter 5

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Chapter 7

Contents (Contd.)

Chapter

1

Installing the Fast EtherNet

Fast Ethernet 7100e+

Installing the Fast EtherNet

Major features of the board 7100e+

Compatible with multiple protocols

- Compatible with the four network protocols – EtherTalk, TCP/IP, IPX/SPX and NetBEUI.

Dedicated network utility included

- The Fast EtherNet can be configured from Windows98/95, NT4.0 and Macintosh.

Manageable from a Web Browser

- If it is connected with TCP/IP, the Fast EtherNet and the printer menu can be configured from a Web Browser such as Microsoft Internet Explorer or Netscape Navigator.

Compatible with SNMP

- Packages an SNMP agent which operates in UDP

Note✒ *The 7100e+ is a general-purpose Fast EtherNet. Please note that, depending on the printer installed, some functions may become unusable.*

Product identification

Please check that the following products are all present.

The Fast EtherNet itself　　　　　Mounting screws (2)
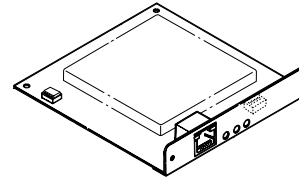
Fast EtherNet　　　　　　　Network software CD-ROM
User Manual (booklet)
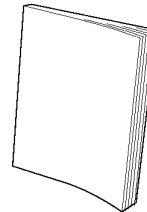
Warranty

Part names of the Fast EtherNet
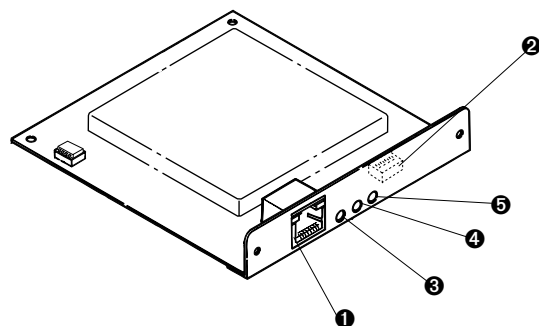
❶ **Connector for 100BASE-TX/10BASE-T**

Connected with a twisted pair cable.

Note✎ *Automatically switches over between 100BASE-TX and 10BASE-T*

❷ **DIP switches**

For initialization of the Fast EtherNet, verification of the settings contents and the self-diagnosis test. Refer to Page 14 for the function of each switch.

❸ **STAT LED (orange lamp)**

Flashes during data reception. In the case that abnormality of the Fast EtherNet was detected, performs one of the following.

· Flashes at set intervals

· Stays switched on

· Stays switched off

❹ **LINK 100M LED (green lamp, center)**

Lit during connection with 100BASE-TX.

❺ **LINK 10M LEED (green lamp, from cable)**

Lit during connection with 10BASE-T.

Mounting on a printer

The method of mounting the Fast EtherNet differs from one printer to another. For details refer to your printer's User Manual.

Ethernet board
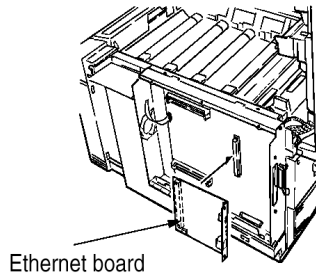
Connecting to a network

Needed for the connection

The following products are needed in order to connect the Fast EtherNet to a network. If needed, these products can be purchased from a network product supplier.
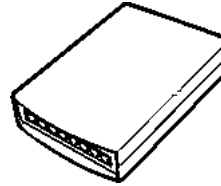
Hub/Switch wall socket
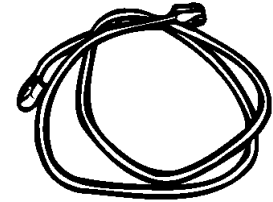
Twisted pair cable
(Category 5 Straight)

The connection process

1. Turn OFF the printer's power switch
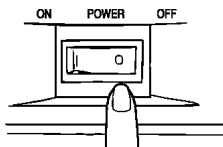
2. Insert the twisted pair cable into the Fast EtherNet connector.
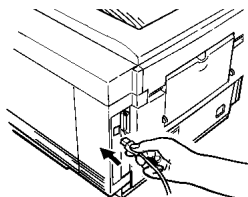
3. Insert the other end of the twisted pair cable into the hub/switch wall socket.
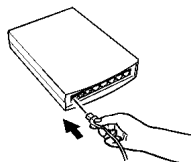
4. Turn ON the printer's power switch.
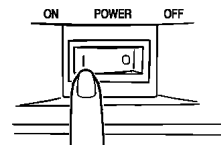
Note✒ *In the case that the network used includes a router and a server, start the router and the server and only then turn ON the printer's power switch. If the printer's power switch is turned ON before the router and the server, the network may not function normally.*

Verification of the "print menu" of the printer

In order to use the Fast EtherNet, the Fast EtherNet settings must first be verified. You can verify these settings by using the "print menu" of the printer.

Note✎ *The method of menu printing differs from one printer to another. For details refer to the your printer's user manual.*

In the following explanation, OKIPAGE 8c is used as an example.

1. Press ON-LINE , the printer switches to "Online".

2. Hold down "print menu"" for more than 2 seconds, the printer switches to "menu printing"

   Menu printing begins.

3. After the menu printing is completed, press ON-LINE , the printer switches to "Online".

```
OKIPAGE  8C
   COLOR  PAGE  PRINTER
```

```
     OKIPAGE  8C
        COLOR  PAGE  PRINTER
```

Operator Par
Level-1
   Category
Common
  PERSONALIT
  TRAY SELEC

  EDIT SIZE
  PAPER SIZE
  MEDIA TYPE

  PAPER SIZE
  COPIES
  EURO SIGN
PCL5c Emulat
  FONTS & SY

Fast EtherNet settings

```
MLETB08 Verstion 1.0.0
TCP/IP status
        IP address      :0.0.0.0
        Subnet Mask     :0.0.0.0
        Gateway addr    :0.0.0.0
NetWare status
        NWPrint mode    :Failed
EtherTalk status
        Zone Name       :*
        Type Name       :LaserWriter
        Object Name     :ML0100D2
NetBEUI status
        Computer Name   :ML0100D2
        Workgroup Name  :PrintServer
        Master Browser  :ML0100D2
MAC Address             :00:80:92:01:00:D2
```

Functions of the DIP Switches

By using the DIP Switches of the Fast EtherNet, initialization of the Fast EtherNet, verification of its settings and the self-diagnosis test can be performed.
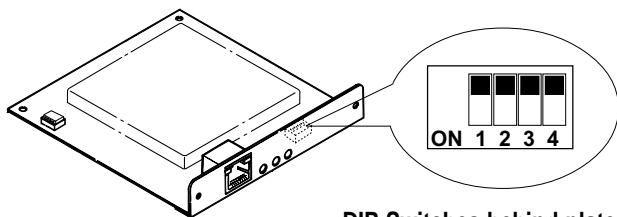
DIP Switches behind plate

Note✎ *During normal operation, all the DIP Switches should be switched OFF. In order to change the settings of the DIP Switches, turn the printer's power switch OFF. DIP Switch No. 1 is normally OFF.*

Initialization of the Fast EtherNet

1. Turn the printer's power switch OFF.

2. Turn DIP Switch No. 2 ON.

3. Turn the printer's power switch ON.

   The Fast EtherNet is initialized.

4. Make sure that the printer is fully operative and turn the printer's power switch OFF.

5. Turn DIP Switch No. 2 OFF.

Note✎ *If the Fast EtherNet was used even once with a different network, it has to be initialized before it can be used.*

Verification of the settings contents

1. Turn the printer's power switch OFF.

2. Turn DIP Switch No. 3 ON.

3. Turn the printer's power switch ON.

   The current settings contents are printed.

4. Turn the printer's power switch OFF.

5. Turn DIP Switch No. 3 OFF.

<Example of printing the settings contents>

```
                                    EthernetBoard  MLETB08 Version 1.0.0
                                    Copyright 1998(C) Oki Data Corporation
                                    Copyright 1998(C) Japan Computer Industry In

                                    *** Configuration report ***
EtherTalk protocol     :ENA        TCP/IP protocol        :ENABLE
Zone name              :"*"        IP address             :0.0.0.0
NetBEUI protocol       :ENA        Subnet mask            :0.0.0.0
Computer name          :"ML        Gateway address        :0.0.0.0
Workgroup name         :"Pr        RARP protocol          :DISABLE
Comment                :"Et        DHCP/BOOTP protocol    :DISABLE
NetWare port name      :"ML        root password          :""
EtherTalk port name    :"ML        Authentic community    :"******"
BOJ string             :""         Trap community         :"public"
EOJ string             :""         Trap address           :0.0.0.0
BOJ string(KANJI)      :""         SysContact             :""
EOJ string(KANJI)      :"\x        SysName                :""
Printer type           :PS         SysLocation            :""
TAB size(char.)        :8          DefaultTTL             :255
Page width(char.)      :78         EnableAuthenTrap       :2
Page length(line)      :66         NetWare protocol       :ENABLE
lpr/ftp banner         :NO         Packet type            :802.2
Prn-Trap Community      :"pu        NetWare mode           :PSERVER
TCP#1 Trap enable      :DIS        FSERVER name 1         :""
On-line trap           :DIS        FSERVER name 2         :""
Off-line trap          :DIS        FSERVER name 3         :""
Paper Out trap         :DIS        FSERVER name 4         :""
Paper Jam trap         :DIS        FSERVER name 5         :""
Cover Open trap        :DIS        FSERVER name 6         :""
Printer Error trap     :DIS        FSERVER name 7         :""
TCP#1 Trap address     :0.0        FSERVER name 8         :""
TCP#2 Trap enable      :DIS        Machine name           :"ML0100D2"
           .                       Password               :""
           .                       Job polling interval   :4
           .                       Bindery mode           :ENABLE
           .                       NDS tree               :""
           .                       NDS context            :""
           .                       PSERVER name 1         :""
           .                       PSERVER name 2         :""
           .                       PSERVER name 3         :""
                                   PSERVER name 4         :""
                                   PSERVER name 5         :""
                                   PSERVER name 6         :""
                                   PSERVER name 7         :""
                                   PSERVER name 8         :""
                                   Job timeout            :10
```

Self-diagnosis test

1. Turn the printer's power switch OFF.

2. Turn DIP Switch No. 4 ON.

3. Turn the printer's power switch ON.

    The results of the self-diagnosis are printed.

4. Turn the printer's power switch OFF.

5. Turn DIP Switch No. 4 OFF.

<Example of printing the self-diagnosis test>

EtherNet address

```
EthernetBoard MLETB08 Version 1.0.0
Copyright 1999(C) Oki Data Corporation
Copyright 1999(C) Japan Computer Industry Inc.

*** Diagnostic report ***
      ROM Check: Ok stat: FBCF FFFF 0000 0000
      RAM Check: Ok stat: 8000 0000 0080 0000
      NIC Check: Ok addr: 00:80:92:01:00:D2   10BASE-T(TPI)
   EEPROM Check: Ok stat: 8F45 8F45 0000 0000

         DIPSW1 : OFF(ON:Test use only)
         DIPSW2 : OFF(ON:Initialize configuration)
         DIPSW3 : OFF(ON:Configuration print)
         DIPSW4 : ON (ON:Diagnostic print)
```

Note✎ *If "NG" is indicated, refer to "Chapter 8 Trouble Shooting".*

Chapter

2

Printing from Windows98/95

Fast Ethernet 7100e+

Printing from Windows 95/98

In order to print from Windows 95/98 via TCP/IP, it is necessary to set up the Fast EtherNet and Windows 95/98. Windows 95/98 does not include a LPR printing function, so you must use the OKI LPR utility. This utility can be found on the accompanying CDROM.

OKI LPR Utility Operating Environment

- A computer which runs Windows 95/98 and which has a network adapter supporting TCP/IP.
- A compatible printer such as;
  - OKIPAGE 16n
  - OKIPAGE 20 series
  - OKIPAGE 24 series
  - OKIPAGE 8c
  - OKIPAGE 8c+

Note* *The operation of this LPR utility cannot be guaranteed with any printer other than those specified above..*

Configuring Windows98/95

Install "TCP/IP" protocol in Windows98/95 and configure the IP address, subnet and gateway.

Note* *If you type in a wrong IP address, the network may go down or other severe damage may occur. Make sure to check with the network manager and to determine the appropriate address.*

In the case that a small-scale LAN is included, such as a network connecting one printer and one computer, refer to Page 22 for the settings.

In the following explanation, Window98 is used as an example. The screen display and part of the contents of the selected directory may differ, depending on the OS version and the system structure.
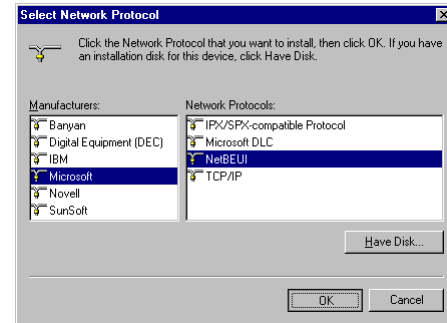
Please have ready the "Windows98/95 System Software CD-ROM".

1. Start the "Network" control panel.

2. Open the "Network configurations" tab and confirm that "TCP/IP➔XXX" is displayed.

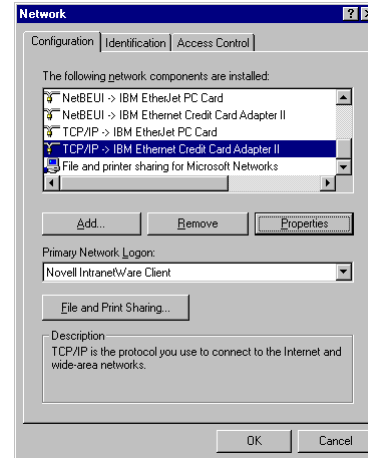   If "TCP/IP➔XXX" is not displayed, click on "Add".
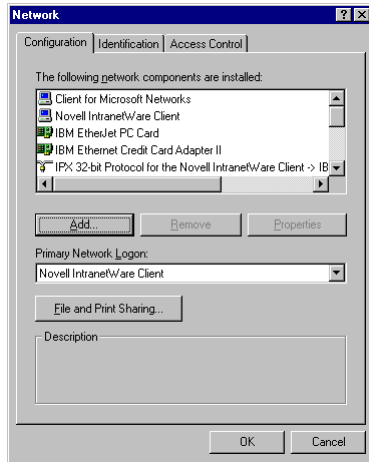
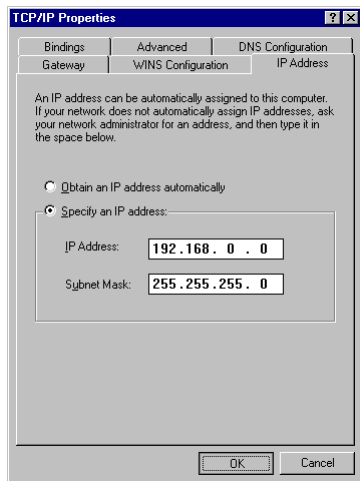3. Select "Protocol" and click on "Add".

4. Select "Microsoft" and "TCP/IP", click on "OK".

5. Select "TCP/IP➔XXX", click on "Properties".

6. Configure each of the "IP address, Subnet Mask, Gateway, DNS Settings".

7. Restart Windows 98/95.

Configuring the IP address for the Fast EtherNet

Use the Standard Setup Utility (Window) attached to the Fast EtherNet and configure the IP address of the Fast EtherNet, the subnet mask and the gateway.

For the details of the Standard Setup Utility, refer to "Chapter 7 Management of the Fast EtherNet".

Please have ready the "Fast EtherNet's companion CD-ROM".

Note✎ *If you type in the wrong IP address, subnet mask or gateway, the network may go down or other severe damage may occur. Make sure to check with the network manager and to determine the appropriate address.*

1. Connect the Fast EtherNet to the network and turn ON the printer's power switch.

2. Configure the computer to the "Fast EtherNet's companion Network Software CD-ROM".
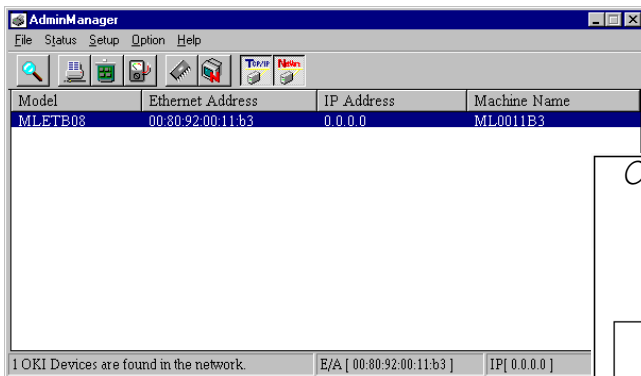
   The Setup Utility starts automatically.

Note✎ *If the Setup Utility does not start automatically, double-click on "Autorun.exe" in the "Windows" folder of the CD-ROM.*

3. Click on "English".

   The "Setup Utility" screen is displayed.

4. Click on "OKI Device Standard Setup".

5. Select "Execute from CD-ROM" and click on "Next".

6. If you agree to the User License Agreement, click on "Yes". Starts the "AdminManager".

7. Look up the EtherNet address in the list and select the Fast EtherNet to setup.
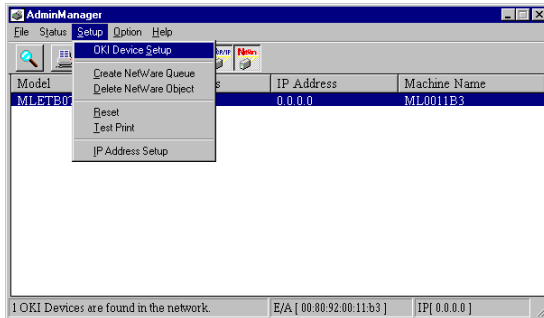

MEMO

The EtherNet address (MAC address) appears in the "print menu" of the printer.

8. Choose the "OKI Device Setup" in the "Setup" menu.

<In case that TCP/IP protocol is the only working protocol>

(1) When the next message is displayed, click on "Yes".

(2) Type in the EtherNet address and the "IP address" which configured it, and click on "OK".

(3) Click on "Yes" in order to validate the values set.

(4) After a while, the Fast EtherNet is displayed in the list. Select the Fast EtherNet displayed and choose the "OKI Device Setup" in the "Setup" menu.

If the Fast EtherNet is not displayed, click on the "OKI Device search" button.

9. Configure the TCP/IP Tab item and make the following "Settings".

❶ Check the "Use the TCP/IP protocol".

❷ Type in the "IP address".

❸ Uncheck the "Use RAPP" and "Use DHCP/BOOTP".

Note✎ *In the case that the IP address is obtained from the RARP server, DHCP server or BOOTP server, check in accordance with the network environment. In the case that no server exists, you must uncheck or severe damage may be caused to the network*
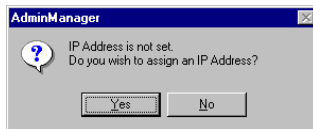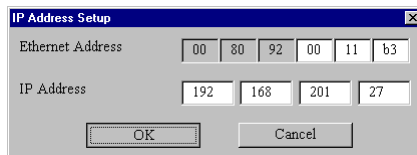
---

❹ Type in the "Subnet mask".

❺ Type in the "Gateway address".

10. If the settings are all correct, click on "Setup". The values set are transmitted to the Fast EtherNet after clicking on "Yes".

Note✎ *At this point, however, the Fast EtherNet operates on the pre-transmission values set.*

---

11. In order to validate the values set, click on "Yes".

12. Select "Exit" in the "File" menu and close the AdminManager. Next, click on "Exit" in the Setup Utility to quit the Setup Utility.

Please make sure that no other networks are linked. If other network are linked, severe damage may be caused to the network if the following settings are used.

❶ IP address: The top 3 numbers   192.168.0 fixed

                      The 4th number   Between 1 and 254

                      If necessary, use a different [IP address] for the computer and printer

                      (example)   Computer : 192.168.0.1

                      Printer   : 192.168.0.2

❷ Subnet mask: 255.255.255.0 fixed

❸ Gateway: 0.0.0.0 fixed
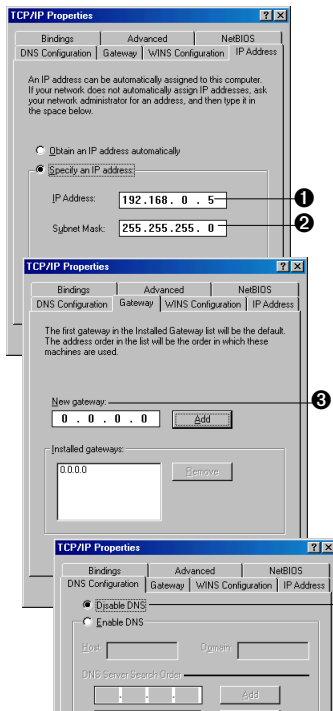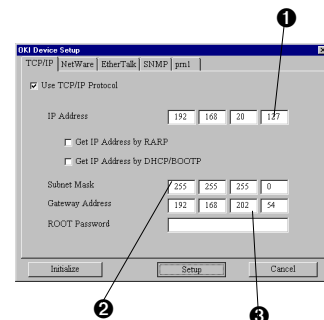
❹ DNS: Disable DNS

<Computer>   <Printer>

Setting up the printer software

Next, set up the printer software. After adding the printer driver in Windows98/95 as the "Default local printer", perform the setup.

Note✐ *Set up the OKI LPR utility on a hard disc drive with ample free space. If there is insufficient free space on the hard disc, attempting to print a large volume of data or too many print jobs may cause failure of the data spool and the printer may fail to print.*

In the following explanation, setting up OKIPAGE 8c(PS) as the printer in Windows98 is used as an example.

Please have ready the "Fast EtherNet's companion network software CD-ROM".

1. Set up the printer driver as the "Default local printer".

   Please refer to the your printer's user manual for instructions on how to set up your printer driver.
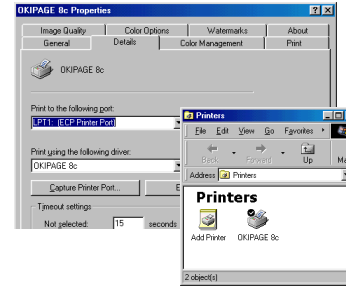
2. Insert the "Fast EtherNet's companion network software CD-ROM" into the computer.

   The Setup Utility starts automatically and is exited by clicking on "Exit".

3. Click on the "Start" button and select "Run".

---
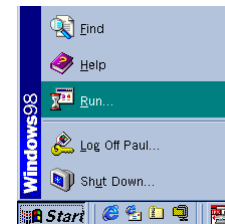
4. In "Name" type in "D:\OKILPR\SETUP" (when the CD-ROM drive is D:) and click on "OK".
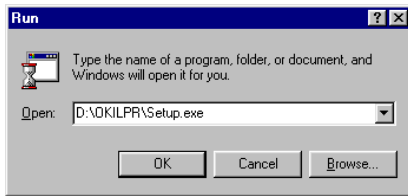
The setup program starts. Proceed with the setup following the instructions on the screen.

5. After completing the setup, double-click on the "OKI LPR utility".

6. Select "Add printer" from the "Remote printer" menu.
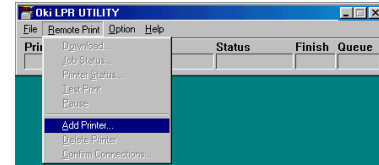
7. Among the "Printers", select the printer added in process 1 and type in the IP address of the Fast EtherNet under "IP address". If the printer and the IP address are correct, click on "OK".
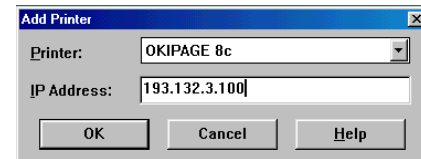
8. The printer is added in the main window.
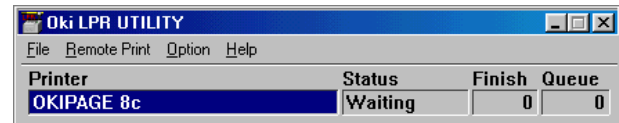
The setup is then completed.
While the OKI LPR utility is operating, printing is from the application software.

Note✎

- · *The OKI LPR utility is capable of registering up to 10 printers.*

- · *If the OKI LPR utility directory or the spool directory contains any files that have been added after the installation of the utility, you will not be able to delete the directory. In order to uninstall the OKI LPR utility fully, please delete any additional files in these directories first.*

- · *Please do not change the "Spool settings" of the "Details" tab of the printer driver properties from "No support of bidirectional transmission of this printer". If you do, errors may occur during printing.*

- · *In the case that a postscript printer is used, although "Data format" can be selected in the "Detail setting" of the "PostScript" tab of the printer driver "Properties", only "ASCII data" should be selected here. In the case that anything other than "ASCII data" is selected, a postscript error may occur.*

  In addition, in applications capable of specifying the data format in the printing options (Adobe Photoshop, QuarkXpress, etc.), please make sure to select "ASCII". If anything other than "ASCII" is selected, a postscript error may occur.

With the NetBUEI protocol

Configuring Windows98/95

In the following explanation, Window98 is used as an example. The screen display and part of the contents of the selected branch may differ, depending on the OS version and the system structure.

Please have ready the "Windows98/95 System Software CD-ROM".

1. Start the "Network" control panel.

2. Confirm that "Microsoft network client" and "NetBEUI→XXX" are displayed.

    If "NetBEUI→XXX" is not displayed, click on "Add".
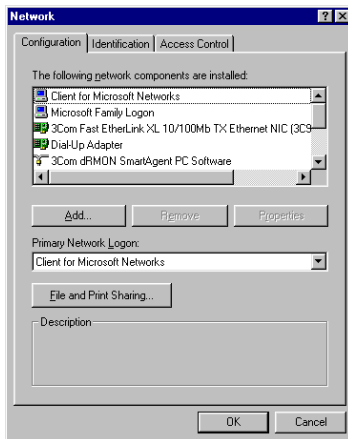
3. In the case that "Microsoft network client" is not displayed, select "Client" and click on "Add".
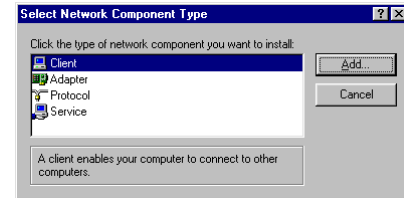
4. Select "Microsoft" and "Microsoft network client", click on "OK".
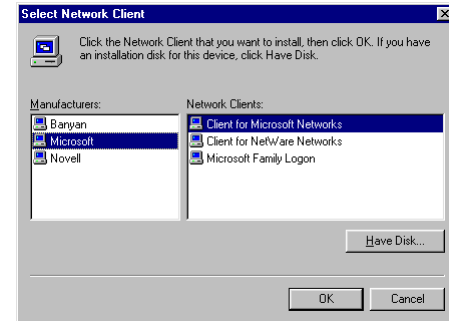
5. In the case that "NetBEUI→XXX" is not displayed, select "Protocol" and click on "Add".
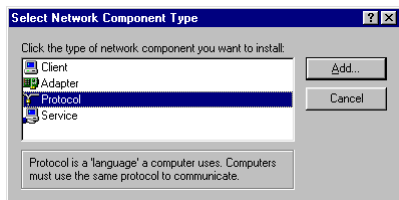
6. Select "Microsoft" and "NetBEUI", click on "OK".
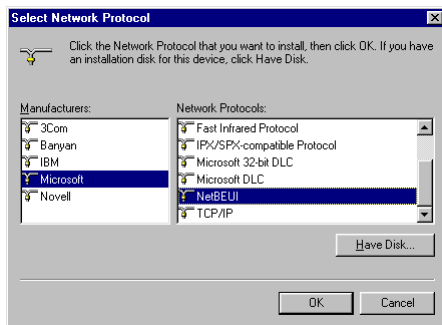
7. Restart Windows 98/95.

Setting up the printer software

Next, set up the printer software. After adding the printer driver in Windows98/95 as the "Default local printer", perform the setup.

In the following explanation, setting up OKIPAGE 8c(PS) as the printer in Windows98 is used as an example.

1. Set up the printer driver as the "Default local printer".

    Please refer to the your printer's user manual for instructions on how to set up your printer driver.
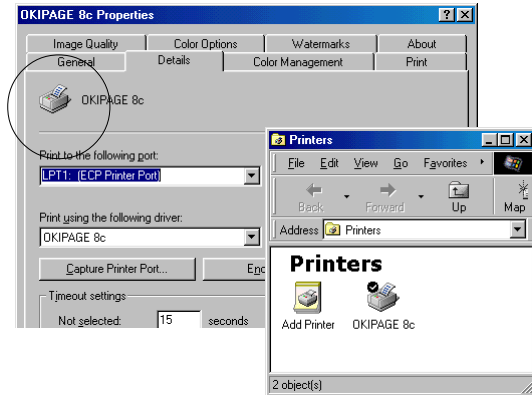
2. Open the "Details" tab of the printer driver.

3. Click on "Add port".
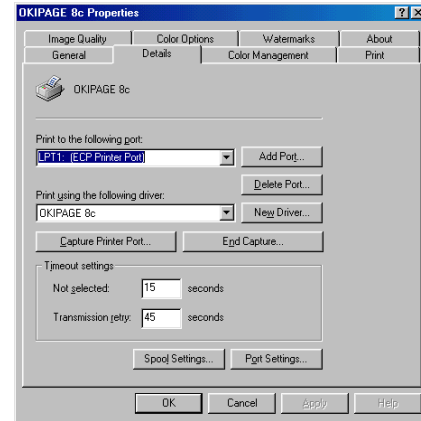
4. Select "Network" and click on "Browse".
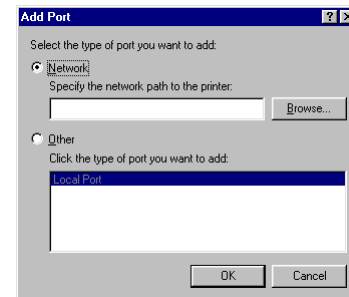
5. Double-click on "Entire Network", "PrintServer", "MLxxxxxx".


```
OKIPAGE 8C
   COLOR PAGE PRINTER


MLETB08 Verstion 1.0.0
TCP/IP status
        IP address     :0.0.0.0
        Subnet Mask    :0.0.0.0
        Gateway addr   :0.0.0.0
NetWare status
        NWPrint mode   :Failed
EtherTalk status
        Zone Name      :*
        Type Name      :LaserWriter
        Object Name    :ML0100D2
NetBEUI status
        Computer Name  :ML0100D2
        Workgroup Name :PrintServer
        Master Browser :ML0100D2
MAC Address            :00:80:92:01:00:D2
```

MEMO

✐ *The "PrintServer" is the "Workgroup Name" displayed in the "print menu" of the printer.· "MLxxxxxx" is the "Computer Name" displayed in the "print menu" of the printer.*

6. Select "Prn1" and click on "OK".
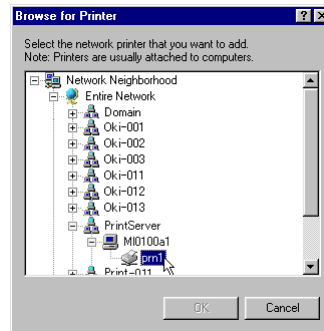
7. Confirm that "Network path to the printer" is indicated and click on "OK". Close the Properties box by clicking on "Apply" and "OK".
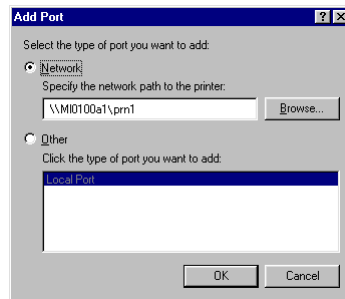
The setup is completed.

Printing is from the application software.

Note⁄

·   *The "Computer name" name and "Workgroup" name
    can be changed using a Web Browser, , etc.*

·   *The Master Browser function manages the machine
    information which exists within the same Workgroup,
    and replies to summary requests from other Workgroups.*

·   *The Master Browser function of this Fast EtherNet
    operates only if the Workgroup name is "PrintServer".*

·   *The Master Browser function cannot manage anything
    other than this Fast EtherNet. If the "PrintServer"
    name is put into another Workgroup, the Fast EtherNet
    will not be able to find it in the network.*

·   *A maximum of 8 Fast EtherNets can be managed by the
    Master Browser function.*

Chapter

3

Printing From WindowsNT 4.0

Fast Ethernet 7100e+

Printing From WindowsNT 4.0

In order to print from WindowsNT Server 4.0 or WindowsNT Workstations 4.0, WindowsNT 4.0 and the Fast EtherNet have to be set up. The TCP/IP protocol and NetBEUI protocol can be used from WindowsNT 4.0.

Note✐ *The "AppleTalk Printing Devices" output port of WindowsNT 4.0 is dedicated to postscript printers. It cannot be used for printers other than postscript printers.*

With the TCP/IP protocol

Configuring the WindowsNT 4.0

Adds the "TCP/IP protocol" and "Microsoft TCP/IP printing" services to WindowsNT 4.0, sets the IP address, subnet mask and gateway.

Note✐

· *If you type in a wrong IP address, the network may go down or other severe damage may occur. Make sure to check with the network manager and to determine the appropriate address.*

· *In the case that a small-scale LAN is included, such as a network connecting one printer and one computer, refer to Page 22 for the settings.*

· *If WindowsNT 4.0 is set, login must be done with the Administrator's authorization.*

In the following explanation, WindowsNT Server 4.0 is used as an example. The screen display and part of the contents of the selected branch may differ, depending on the OS version and the system structure.

Please have ready the "WindowsNT 4.0 System Software CD-ROM".

1. Start the "Network" control panel.

2. Open the "Protocol" tab and confirm that "TCP/IP protocol" is displayed.

   If "TCP/IP protocol" is not displayed, click on "Add".
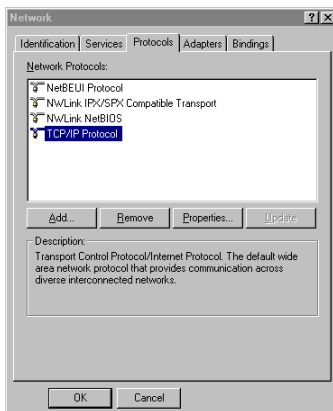
3. Select "TCP/IP protocol" and click on "OK".
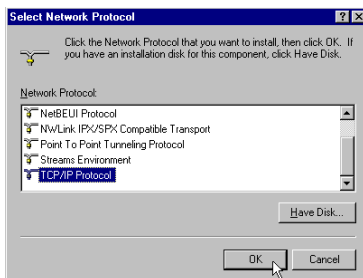
4. Select "TCP/IP protocol" and click on "Properties".
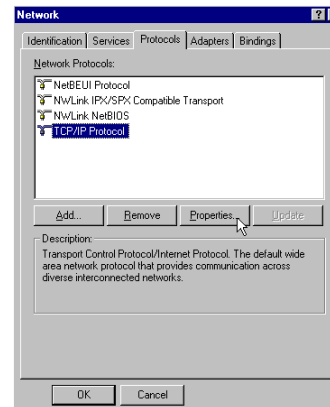
5. Configure each of the "IP address, Subnet Mask, Gateway, DNS Settings".
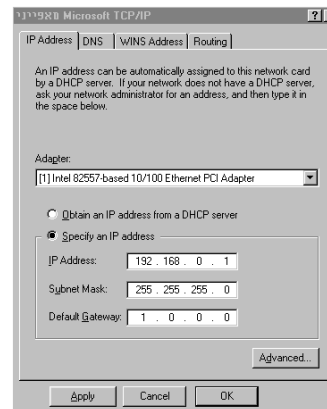
6. Open the "Service" tab and confirm that "Microsoft TCP/IP printing" is displayed.
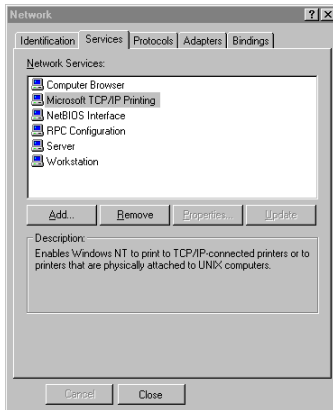
7. Select the "Microsoft TCP/IP printing" and click on "OK".
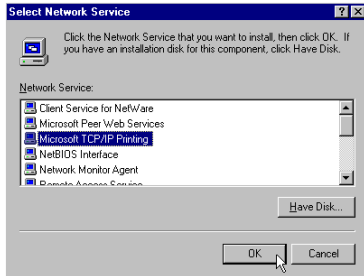
8. Restart WindowsNT 4.0.

Configuring the IP address for the Fast EtherNet

Use the Standard Setup Utility (Window) attached to the Fast EtherNet and configure the IP address of the Fast EtherNet, the subnet mask and the gateway.

For the details of the Standard Setup Utility, refer to "Chapter 7 Management of the Fast EtherNet".

Please have ready the "Fast EtherNet's companion CD-ROM".

Note✎ *If you type in the wrong IP address, subnet mask or gateway, the network may go down or other severe damage may occur. Make sure to check with the network manager and to determine the appropriate address.*

1. Connect the Fast EtherNet to the network and turn ON the printer's power switch.

2. Configure the computer to the "Fast EtherNet's companion Network Software CD-ROM".

   The Setup Utility starts automatically.

Note✎ *If the Setup Utility does not start automatically, double-click on "Autorun.exe" in the "Windows" folder of the CD-ROM.*

3. Click on "English".

   The "Setup Utility" screen is displayed.

4. Click on "OKI Device Standard Setup".

5. Select "Execute from the CD-ROM" and click on "Next".

6. If you agree to the User License Agreement, click on "Yes". Starts the "AdminManager".

7. Look up the EtherNet address in the list and select the Fast EtherNet performing to set up.

MEMO
✍ *The EtherNet address (MAC address) appears in the "print menu" of the printer.*

8. Choose the "OKI Device Setup" in the "Setup" menu.

<In case that TCP/IP protocol is the only working protocol>

(1) When the next message is displayed, click on "Yes".

(2) Type in the EtherNet address and the "IP address" which configured it, and click on "OK".

(3) Click on "Yes" in order to validate the values set.

(4) After a while, the Fast EtherNet is displayed in the list. Select the Fast EtherNet displayed and choose the "OKI Device Setup" in the "Setup" menu.

If the Fast EtherNet is not displayed, click on the "OKI Device search" button.

9. Configure the TCP/IP Tab item and make the following "Settings".

❶ Check the "Use the TCP/IP protocol".

❷ Type in the "IP address".

❸ Uncheck the "Use RAPP" and "Use DHCP/BOOTP".

Note✒ *In the case that the IP address is obtained from the RARP server, DHCP server or BOOTP server, check in accordance with the network environment. In the case that no server exists, you must uncheck or severe damage may be caused to the network*

❹ Type in the "Subnet mask".

❺ Type in the "Gateway address".

10. If the settings are all correct, click on "Setup". The values set are transmitted to the Fast EtherNet after clicking on "Yes".

Note✒ *At this point, however, the Fast EtherNet operates on the pre-transmission values set.*

11. In order to validate the values set, click on "Yes".

12. Select "Exit" in the "File" menu and close the AdminManager. Next, click on "Exit" in the Setup Utility to quit the Setup Utility. Utility to exit the Setup Utility.

Setting up the Printer Driver

Set up the Printer Driver for Windows NT4.0. The following procedure uses an OKIPAGE 8c(PS) as an example. The IBM PC/AT compatible PC running WindowsNT Server has the CD-ROM as drive D:

To complete these changes you will also need the "Printer Software CD-ROM".

Note✎ *This set-up requires you to login as administrator.*

1   Install the Printer Software CD-Rom which will autorun.

     The set-up program will start. Now continue with the Set-up process by following the on-screen instructions.

Note✎ *The set-up procedure varies depending on the printer you use. See the User's Manual supplied with the printer for details.*

2   Click "Start" from Windows taste bar, "Settings", "Printers", double click on "Add Printer"

     [Printer Add Wizard] will be displayed. Tick [My computer] and click [Next].

Note✎ *Be sure to select [My Computer].*
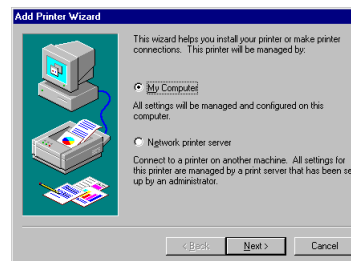
3   Click [Add Port].
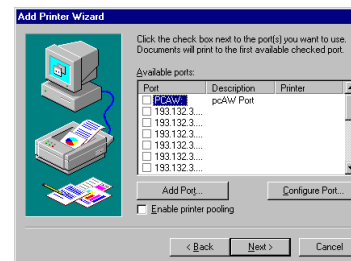
4   Select [LPR Port] and click [New Port].

Note✐

   • *Do not select any port other than [LPR Port].*

   • *[Apple Talk Printing Device] is available only for PostScript. It cannot be used for any other than a PostScript driver.*
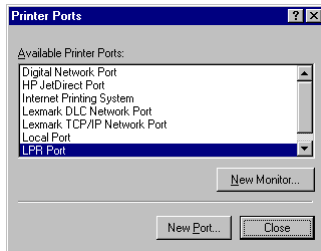
5   Enter [Printer IP Address] and [Printer Queue Name].

Enter [Ip] for the printer queue name. With any other name, printing will not be carried out properly.
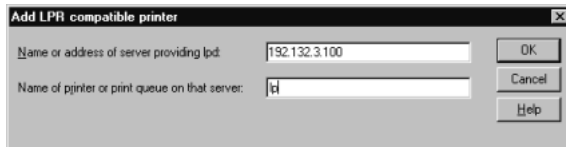
Click [OK] and [Close] to return to the Printer Wizard window, then click [Next].

6   Press "Cancel" on the printer driver has already been installed.

7   Select a printer model, right mouse click, and then click on "Properties".
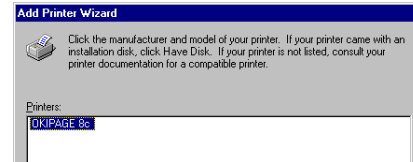
8   Click on the "Ports" tab.

9   Check the box next to the port that was added previously. Click "OK"

Print from the added printer via application software.
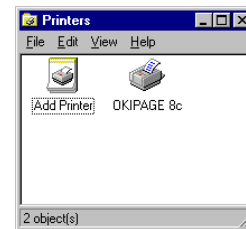
With the NetBEUI protocol

Setting the WindowsNT 4.0

Adds the "NetBEUI protocol" to WindowsNT 4.0.

Note✐ *If WindowsNT 4.0 is set, login must be done with the Administrator's authorization.*

In the following explanation, WindowsNT Server 4.0 is used as an example. The screen display and part of the contents of the selected branch may differ, depending on the OS version and the system structure.

Please have ready the "WindowsNT 4.0 System Software CD-ROM".

1. Start the "Network" control panel.

2. Open the "Protocol" tab and confirm that "NetBEUI protocol" is displayed.

   If "NetBEUI protocol" is not displayed, click on "Add".
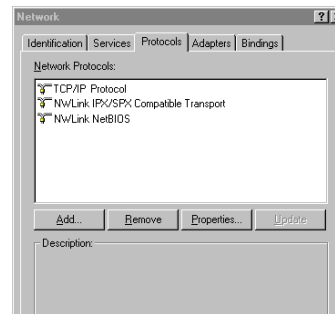
3. Select "NetBEUI protocol" and click on "OK".
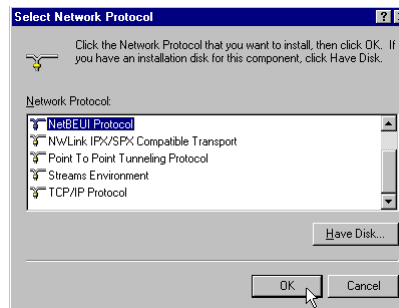
4. Restart WindowsNT 4.0.

Setting up the printer driver

Next, set up the printer software. After adding the printer driver in WindowsNT 4.0 as the "Default local printer", perform the setup.

In the following explanation, setting up OKIPAGE 8c(PS) as the printer in WindowsNT Server 4.0 is used as an example.

Please have ready the "Printer software CD-ROM".

Note: *Please login with the Administrator's authorization and then conduct the setup.*

---

1. Set up the printer driver as the "Default local printer".

   Please refer to the your printer's user manual for instructions on how to set up your printer driver.

2. Open the Properties "Port" of the printer driver.

3. Click on "Add port".
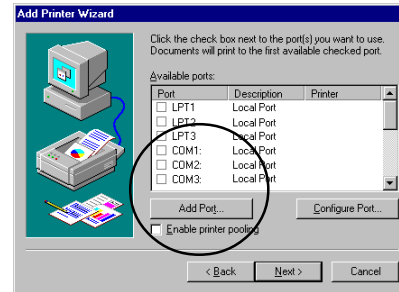
4. Select the "Local Port" and click on "New port".

Note: *Do not select any port other than the "Local Port".*

---
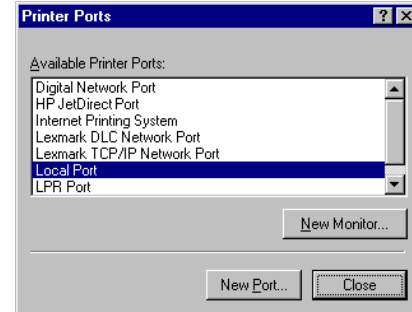
5.   Type in "\\MLxxxxxx\PRN1" in the "Type in the port name" and click on "OK".

Note✎
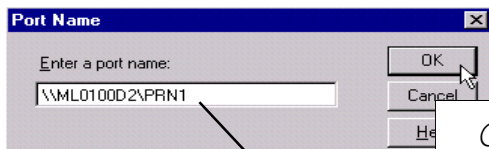
Port Name

Enter a port name:

\\ML0100D2\PRN1

OK
Cancel
He...

```
OKIPAGE 8C
 COLOR PAGE PRINTER



MLETB08 Verstion 1.0.0
TCP/IP status
        IP address      :0.0.0.0
        Subnet Mask     :0.0.0.0
        Gateway addr    :0.0.0.0
NetWare status
        NWPrint mode    :RSERVER
EtherTalk status
        Zone Name       :*
        Type Name       :LaserWriter
        Object Name     :ML0100D2
NetBEUI status
        Computer Name   :ML0100D2
        Workgroup Name  :PrintServer
        Master Browser  :ML0100D2
MAC Address             :00:80:92:01:00:D2
```

MEMO
✍

"MLxxxxxx" is the "Computer Name" displayed in the "print menu" of the printer.

- · *The "Computer name" name and "Workgroup" name can be changed using a Web Browser, Telnet, etc.*

- · *The Master Browser function manages the machine information which exists within the same Workgroup, and replies to summary requests from other Workgroups.*

- · *The Master Browser function of this Fast EtherNet operates only if the Workgroup name is "PrintServer".*

- · *The Master Browser function cannot manage anything other than this Fast EtherNet. If the "PrintServer" name is put into another Workgroup, the Fast EtherNet will not be able to find it in the network.*

- · *A maximum of 8 EtherNet*

This completes the printer driver setup.

Printing may now be done from the application software.

Chapter

4

Using with the Macintosh

Fast Ethernet 7100e+

Printing From Macintosh

In order to print from Macintosh via an EtherTalk network, it is necessary to set up the Fast EtherNet and the Macintosh.

Note✐ *To print from Macintosh, you need to have a PostScript printer. If your printer does not include PostScript, you cannot use it.*

Confirming the configuration of your printer

If you use an EtherTalk network from Macintosh, it is not necessary to change the Fast EtherNet settings.

• The menu printing procedure varies depending on the printer you use. See the User's Manual supplied with your printer for details.

• For printers whose settings cannot be checked using menu print, see "Checking the Configuration" under "Printing a Test Page" in Chapter 1.

The following description uses OKIPAGE 8c as an example. Print the menu of your printer to confirm the current settings.

1 Press **ON-LINE** to place the printer "Off-line".

2 Hold down **Print Menu** for 2 seconds or more to select "Print Menu". Menu printing starts.

3 After the completion of menu printing, press **ON-LINE** to place the printer on-line.

<Example of Menu Print>


```
OKIPAGE 8c
   COLOR PAGE PRINTER

.
.
Operator Panel Menu Settings
Level-1
.
.
.

Common

  PAGE LAYOUT

  HOST INTERFACE    PARALLEL   ENABLE   ENABLE
                    OKI HSP    ENABLE   ENABLE
```

```
OKIPAGE 8c
   COLOR PAGE PRINTER

.
.
TCP/IP status
.
NetWare status
.
EtherTalk status

        Zone Name      :   *
        Type Name      :   LaswerWriter
        Object Name    :   ML0011BC
```
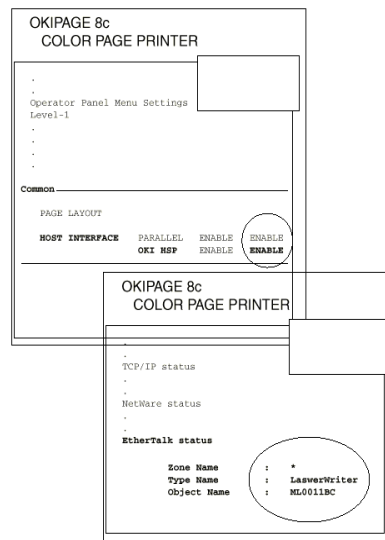
Check that the settings (in bold) are correct.

Note✐

• *If "OKI HSP" of "HOST INTERFACE" in "Common" is set at "DISABLE", switch "OKI HSP" of "HOST INTERFACE" in Level 1 Menu to "ENABLE", referring to the User's Manual of the printer.*

• *"Zone Name" and "Object Name" in "EtherTalk status" vary depending on the user environment.(See network administrator.)*

Configuring Macintosh

Change the route for Macintosh AppleTalk to Ethernet.

The following example uses MacOS8.5. The screen shots and options may vary depending on the OS version and system configuration.

1   Select [AppleTalk] in [Control Panels] in the Apple menu.

Some OS versions have [Network] instead of [AppleTalk].
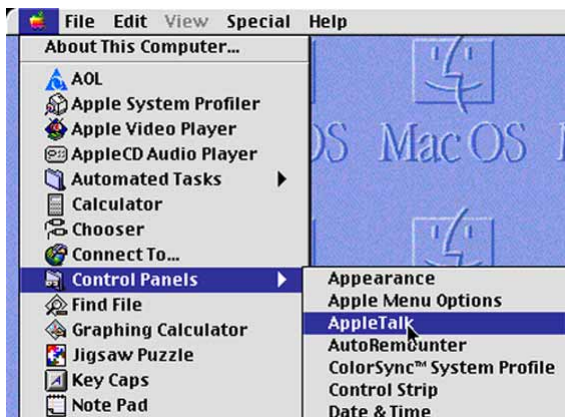
2   Under 'Connect Via:' Select [Ethernet], then close [AppleTalk].

Note ✎ *For [Network], select [EtherTalk]. Ask your network administrator about the zone and the AppleTalk address.*
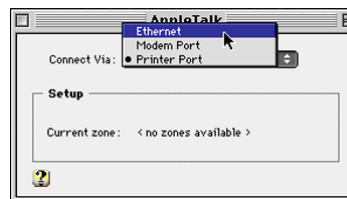
3   When the dialogue is displayed, click [Save].

The message varies according to the details of your modifications.
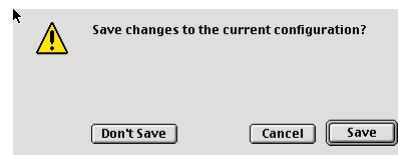
Note ✎ *If the AppleTalk settings on the control panels are switched to [Ethernet], you will not be able to connect to any other printers and Macintoshes on LocalTalk. To connect to LocalTalk, change the [AppleTalk] settings back to [Printer Port].*

Installing the Printer Driver

Install the printer driver onto the Macintosh. See the User's Manual of your printer for details.

Note✐

- *EtherTalk is divided into several zones. If you want to change your printer to another zone, use "Setup Utility (Macintosh)". See "Using Setup Utility (Macintosh)" in Chapter 7 for details.*

- *Use "Setup Utility (Macintosh)" to change your printer name.*

Chapter

Using with UNIX

5

Fast Ethernet 7100e+

Printing From UNIX

In order to print from a UNIX workstation using TCP/IP, the Fast EtherNet and UNIX workstations must be configured.

Configuring the IP address in the Fast EtherNet

The first step is to configure the Fast EtherNet with an IP address, subnet mask and gateway address. This can be done from the UNIX workstation.

Note✒

· *To change the configuration of the Fast EtherNet, you must log into the card and username"root", the initial value of the "root" user password is <none>.*

· *If you type in a wrong IP address, subnet mask or gateway, the network may go down or other severe damage may occur. Please set the configuration only after consulting your network manager.*

In the following explanation, Sun Solaris2.4 is used as an example. The method of configuring each command etc. may differ from one workstation to another. Please refer to the manual of the UNIX workstation used.

1. Log in as root on the workstation.

Note✎ *If it is not possible to log in with super-user authorization, leave the configuration to the network manager.*

2. Using the APR command, set a temporary IP address on the Fast EtherNet.

   Example: In the case that the IP address is "192.168.20.127",

   the Fast EtherNet address is "00:80:92:01:00:D2"

   ```
   # arp -s 192.168.20.127  00:80:92:01:00:D2  temp
   ```

   MEMO
   ✎ *The EtherNet address (MAC Address) is displayed in the print menu of the printer.*

```
OKIPAGE 8C
 COLOR PAGE PRINTER


MLETB08 Verstion 1.0.0
TCP/IP status
        IP address          :0.0.0.0
        Subnet Mask         :0.0.0.0
        Gateway addr        :0.0.0.0
NetWare status
        NWPrint mode        :Failed
EtherTalk status
        Zone Name           :*
        Type Name           :LaserWriter
        Object Name         :ML0100D2
NetBEUI status
        Computer Name       :ML0100D2
        Workgroup Name      :PrintServer
        Master Browser      :ML0100D2
 MAC Address                :00:80:92:01:00:D2
```

3 Use the ping command to confirm the connection with the Fast EtherNet.

   Example: If the IP address is "192.168.20.127", [type]

   #ping 192.168.20.127

Note✎ *If there is no reply, then there is a problem with the configuration of the Procedure 2 IP address or with the condition of the network. Please consult your network manager.*

4   Log in the Fast EtherNet using TELNET.

Example: Logging in the Fast EtherNet in the case that the IP address is "192.168.20.127"

```
telnet 192.168.20.127
Trying 192.168.20.127
Connected to 192.168.20.127
Escape character is '^]'.
Fast EtherNet 7100e+ Ver 1.0.2. TELNET server.
Copyright 1999 (c) Oki Data Corporation
Copyright 1999 (c) Japan Computer Industry
Inc.
login: root
'root' user needs password to login.
password: <CR>
User 'root' logged in.

No.  Message         Value      (level .1)
 1 : Setup TCP/IP
 2 : Setup SNMP
 3 : Setup NetWare
 4 : Setup EtherTalk
 5 : Setup NetBEUI
 6 : Setup printer port
 7 : Display Status
 8 : Setup printer trap
96 : Reset to factory set
97 : Reboot
98 : Quit setup
99 : Exit setup
Please select (1-99)?
```

5.   Type in "1" and press the Enter key. Carry out the following settings.

```
Please select (1-99)? _1

    No.  Message            Value
    1:TCP/IP protocol    : ENABLE
    2:IP address         : 192.168.20.127
    3:Subnet Mask        : 255.255.255.0
    4:Gateway address    : 192.168.20.254
    5:RARP protocol      : DISABLE
    6:DHCP/BOOTP protocol: DIDABLE
    7:root password      : " "
   99:Back to prior menu
   Please select (1-99)?
```

6.   Logout from the Fast EtherNet.

In order to enable new settings, turn the printer OFF/ON.

Note✐ *If the printer is not turned OFF/ON, the Fast EtherNet will continue to use the previous values. Please make sure to turn the printer OFF/ON.*

Configuring the SunOS 4.x.x

Configuring to print from a SunOS 4.x.x BSD system UNIX.

Note✒ *If you type in a wrong IP address, subnet mask or gateway, the network may go down or other severe damage may occur. Please set the configuration only after consulting your network manager.*

In the following explanation, OKIPAGE 8c as the printer and SunOS4.1.3 are used as an example. The absolute path of the commands and the method of configuring may differ, depending on the OS version. Please refer to your workstation's manual.

Method of configuring

1. Log in as the root on the workstation.

Note✒ *In the case that there is no super user authorization, leave the configuration to the network manager.*

2. Register the IP address of the Fast EtherNet and the host name in the /etc/hosts file.

    Example: In the case that the IP address is "192.168.20.127" and the host name is "OP8c"

    ```
    192.168.20.127 OP8c
    ```

3. Use the ping command to confirm a connection with the Fast EtherNet.

    Example: In the case that the host name is "OP8c"

    ```
    #ping OP8c
    ```

Note✒ *In the case that there is no reply, there is a problem with the registration of the Procedure 2 IP address and the host name, or with the condition of the network. Please consult your network manager.*

4. Register the printer in the /etc/printcap file.

    Example: In the case that the printer name "OP8c_lp" is registered in the direct output port (lp)

❶   OP8c_lp:\
❷   :lp=:rm=OP8c:rp=lp:\
❸   :sd=/usr/spool/OP8c_lp:\
❹   lf=/usr/spool/OP8c_lp/OP8c_lp_errs:

<The meaning of each argument>

❶ Indicates the name of the printer.

❷ lp :   The name of the device connecting the printer

         Does not have to be indicated.

    rm: The name of the host of the remote printer.

            Type in the name of the host which was registered in the /etc/hosts file in Procedure 2.

    rp :   The name of the printer of the remote printer

            Select either lp, sjis or euc in the logical printer name of the Fast EtherNet.

            (Please refer to Page 64 for the logical printer name)

❸ sd :   Spool Directory   indicate in the absolute path.

❹ lf :   Error Log File   indicate in the absolute path.

5. Create the Spool Directory and Error Log File that were registered in the /etc/printcap file in Procedure 4.

    Example: To create a Spool Directory "OP8c_lp" and Error Log File "OP8c_lp_errs"

```
# mkdir /usr/spool/OP8c_lp            ←Spool Directory
                                       creation
# touch /usr/spool/OP8c_lp/OP8c_lp_errs ←Error Log File
                                       creation
# chown –R daemon /usr/spool/OP8c_lp   ← Changes the owner
                                       to daemon
# chgrp –R daemon /usr/spool/OP8c_lp   ← Changes the group
                                       to daemon
```

6   Examine if the lpd (printer daemon) is activated or not.

            # PS aux | grep lpd

    If lpd is not operating, please perform the following command [while logged in] as the super-user.

            # /usr/lib/lpd&

Configuring the Sun Solaris 2.x

Configuring in order to print from Solaris2.x of Sun Microsystems.

Note✐

· *Admintool is normally used to register remote printers on Open Windows. However, it cannot be used here, as the data recipient and queue have the same name. The procedure described below must be used for registering a remote printer.*

· *If Solaris2.x is connected with the remote printer for a long period according to the system specifications, errors appear and forced disconnections may occur. Therefore, if paper tearing, offline and other errors produce a waiting time during printing, printing may have to be aborted.*

· *If you type in a wrong IP address, the network may go down or other severe damage may occur. Please set the configuration only after consulting your network manager.*

The following explanation relates to an example in which the Fast EtherNet is configured to work with OKIPAGE 8c(PS) as the printer under Sun Solaris 2.4. The absolute path and method of configuring the command may differ from one OS version to another. Please refer to your workstation's manual.

Method of configuring

1. Log in as root on the workstation.

Note✐ *In the case that there is no super user authorization, leave the configuration to your network manager.*

2. Register the IP address of the Fast EtherNet and the host name in the /etc/hosts file.

    Example: In the case that the IP address is "192.168.20.127" and the host name is "OP8c"

    ```
    192.168.20.127  OP8c
    ```

3   Use the ping command to confirm the connection with the Fast EtherNet.

    Example: In the case that the host name is "OP8c"

    ```
    # ping OP8c
    ```

Note✐ *In the event that there is no reply, there is a problem with the configuration of the IP address of the Fast EtherNet, with the registration of the IP address and host name from Procedure 2 or with the condition of the network. Please consult your network manager.*

4. Register the host which was registered in Procedure 2 as the printer server.

    Example: If "OP8c" is registered as the printer server

    1. Stop the print scheduler

    # /usr/sbin/lpshut

    2. Register the print server

    # /usr/sbin/lpsystem –t bsd OP8c

5. Set and enable the print queue.

    Example: To set the direct output port "lp" with the print queue "OP8c_lp" and the host "OP8c",

    1. Create the print queue

    ```
    #/usr/sbin/lpadmin –p OP8c_lp –s OP8c!lp –I any
    ```

    If you are using csh, type in "\!" or "\" instead of "!".

    2. Start the print scheduler

    #/usr/bin/sh /etc/init.d/lp start

    3. Activate the print queue

    #/usr/sbin/accept OP8c_lp

    4. Validate the print queue

    #/usr/bin/enable OP8c_lp

Configuring the HP-UX9.x

Configuring in order to print from the HP-UX of Hewlett-Packard.

Note✎ *If you type in a wrong IP address, subnet mask or gateway, the network may go down or other severe damage may occur. Please set the configuration only after consulting your network manager.*

The following explanation relates to an example in which [the Fast EtherNet is configured to work with] OKIPAGE 8c(PS) as the printer under HP-UX9.03. The absolute path of the commands and the method of configuring may differ, depending on the OS version. Please refer to your workstation's manual.

Method of configuring

1. Log in as the root on the workstation.

Note✎ *In the case that there is no super user authorization, leave the configuration to the network manager.*

2. The IP address of the Fast EtherNet and the host name are registered in the /etc/hosts file.

    Example: In the case that the IP address is "192.168.20.127" and the host name is "OP8c"

    `192.168.20.127 OP8c`

3. Use the ping command to confirm a connection with the Fast EtherNet.

    Example: In the case that the host name is "OP8c"

    `# ping OP8c`

Note✎ *In the case that there is no reply, there is a problem with the registration of the Procedure 2 IP address and the host name, or with the condition of the network. Please consult your network manager.*

4. When no remote spool is set in the HP-UX machine used, set the following configuration.

   1. *Stop the printer spooler*

   #/usr/lib/lpshut

   2. *Add the following line to the /etc/inetd/conf file and register the remote spooler*

   Printer stream tcp nowait root /user/lip/rlpdaemon –I

   3. *Restart inetd*

   #/etc/inetd –c

5. Register the remote printer

   Example: To set the direct output port "lp" with the print queue "OP8c_lp" and the host "OP8c"

   1. *Register the remote printer*

   #/usr/lib/lpadmin –pOP8c_lp –mrmodel –ormOP8c -orplp –ocmrcmodel –osmrsmodel –ob3 –v/dev/ null

   2. *Activate the print queue*

   #/usr/lib/accept OP8c_lp

   3. *Validate the print queue*

   #/usr/bin/enable OP8c_lp
   4. *Enable the printer spooler*

   #/usr/lib/lpsched

Configuring the AIX4.1.5

Configuring in order to print from the AIX of IBM.

Note✎ *If you type in a wrong IP address, the network may go down or other severe damage may occur. Please set the configuration only after consulting your network manager.*

The following explanation relates to an example in which [the Fast EtherNet is configured to work with] OKIPAGE 8c(PS) as the printer under HP-UX9.03. The absolute path of the commands and the method of configuring may differ, depending on the OS version. Please refer to your workstation's manual.

Method of configuring

1. Log in as the root on the workstation.

Note✎ *In the case that there is no super user authorization, leave the configuration to the network manager.*

2. Register the IP address of the Fast EtherNet and the host name in the /etc/hosts file.

   Example: In the case that the IP address is "192.168.20.127" and the host name is "OP8c"

   ```
   192.168.20.127 OP8c
   ```

3. Use the ping command to confirm a connection with the Fast EtherNet.

   Example: If the host name is "OP8c"

   ```
   # ping OP8c
   ```

Note✎ *In the event that there is no reply, there is a problem with the registration of the Procedure 2 IP address and the host name, or with the condition of the network. Please consult your network manager.*

4. Register the host which was registered in Procedure 2 as the print server.

   Example: In he case that "OP8c" is registered as the print server

   1. Add the print server

   ```
   # ruser –a –p OP8c
   ```

   2. Activate the remote perinter daemon

   ```
   # startsrc –s lpd
   # mkitab 'lpd:2:once:startsrc –s lpd'
   ```

5. Add the print queue using the smit command

   1. Activate the smit command and convert to the item "Add print queue"

   ```
   # smit mkrque
   ```

   2. Select "remote" (the printer connected to the remote host) from "Type of connection".

   3. Select "Standard procedure" from "Type of remote print".

   4. Set the following items in "Add a standard remote print queue" (change configuration other than those indicated below according to the utilization environment)

Example: To set the direct output port "lp" with the print queue "OP8c_lp" and the print server "OP8c"

```
Queue to be added                 "OP8c_lp"
Host name of the remote server    "OP8c"
Queue name of the remote server   "lp"
Type of print spooler of the
remote server                     "BSD"
Description of printer name
of the remote server              "Optional
                                   comment"
```

Printing via LPD

The following describes how to print using TCP/IP's LPD protocol (lpr, lp commands). Please refer to your workstation's manual for the details of the lpr and lp commands. In the following explanation, printing of a print file "test.prn" using the printer name "OP8c_lp" is used as an example.

About LPD

LPD (Line Printer Daemon) is the protocol most commonly used for printing over TCP/IP to a network printer.

About logical printers

The Fast EtherNet includes three logical printers.

In order to print a file created using the printer driver, an "lp" logical printer must be used for printing.

In order to print a text file of the Shift JIS Kanji code, an "sjis" logical printer must be used for printing.

In order to print a text file of the EUC Kanji code, an "euc" logical printer must be used for the printing.

Logic	Printer function
lp	For direct output
sjis	For Shift JIS Kanji converted output
euc	For EUC Kanji converted output

Note✒ *"sjis" and "euc" function only as postscript printers. They cannot be used with other printers.*

BSD-based UNIX

Printing

Print using the "lpr" command.

```
# lpr –POP8c_lp test.prn
```

Canceling the printing requirement

If the "lprm" command is used, the print job is cancelled.

Example: In the case of a print job to "OP8c_lp", deletion of 123.

```
# lprm –POP8c_lp 123
```

Verification of the printer status

Verify the printer status using the "lpq" command.

Note✐

· *In some cases the UNIX specifications may prevent accurate display.*

· *While the short format of lpq is a UNIX-interchangeable format, the long format is a format unique to the Fast EtherNet, which shows the printer status.*

Example: For the short format

```
# lpq –POP8c_lp
```

Example: For the long format

```
# lpq –1 –POP8c_lp
```

System V-based UNIX

Printing

Print using the "lp" command.

```
# lp –d POP8c_lp test.prn
```

Canceling the print request

If the "cancel" command is used, the printing job is cancelled.

Example: In the case of a print job to "OP8c_lp", deletion of 456.

```
# cancel POP8c_lp -456
```

Verification of the printer status

Verify the printer status using the "ipstat" command.

Note✐ *In some cases the Solaris2.x or UNIX specifications may prevent accurate display.*

```
# lpstat –pOP8c_lp
```

Printing via FTP

Printing with the TCP/IP FTP protocol (ftp command) will now be explained. Please refer to your workstation's manual for the details of the ftp command. In the following explanation, printing of a print file "test.prn" using the printer name "OP8c_lp" is used as an example.

About FTP

FTP (File Transfer Protocol) is a protocol used for transferring a file with TCP/IP. If the print data is sent to a logical printer on this Fast EtherNet via FTP then it will be printed out.

Regarding the logical printer

The Fast EtherNet includes three logical printers.

In order to print a file created using the printer driver, use the "lp" logical printer for printing.

In order to print a text file of the Shift JIS Kanji code, use the "sjis" logical printer for printing.

In order to print a text file of the EUC Kanji code, use the "euc" logical printer for printing.

```
/        Root (printing not possible)
├─  lp    For direct output
├─  sjis  For Shift JIS Kanji converted output
└─  euc   For EUC Kanji converted output
```

Note✐ *"sjis" and "euc" function only as postscript printers. They cannot be used with other printers.*

Printing

1. Log into the Fast EtherNet.

Note✎ *When printing with ftp, you can use any values for "Name" and "Pass-word". However, if the user name is "root", the "Password" set under TELNET or the utility (see "Using telnet" in Chapter 7) will be required..*

Example: Logging in the Fast EtherNet with a host name "OP8c" (or an IP address "192.168.20.127").

```
#ftp OP8c (or ftp 192.168.20.127)
Connected to OP8c
220 Fast EtherNet 7100e+ Ver 1.0.0 FTP server
Name (OP8c:root) : root
331 Password required.
Password:
230 User Logged in
ftp>
```

2. Move to the transfer directory using the cd command.

Note✎ *In the Fast EtherNet the transfer directory has a hierarchical structure. Please make sure to move to the transfer directory. It is not possible to output the print data to the root directory.*

Example: Moving to the lp directory and confirming the current directory.

```
ftp>cd /lp
250 Command OK.
ftp>pwd
257"/lp" is current directory
ftp>
```

3. Configure the transfer mode.

Note✏ *There are two types of transfer mode, the "BINARY mode" in which the file contents is output as it is and the "ASCII mode" which converts the LF code to the CR+LF code. If a binary file, converted by the printer driver, is transferred, the transfer mode has to be the "BINARY mode".*

Example: Changing the transfer mode to the BINARY mode and verifying the current mode.

```
ftp> type binary
200 Type set to I.
ftp> type
Using binary mode to transfer files.
ftp>
```

4. Using the put command, transfer the print data to the Fast EtherNet.

There are two modes of file transfer using the put command.

Example: Transferring the print data "test.prn".

ftp> put test.prn

Example: Transferring the print data specified by an absolute path "/users/tes/test.prn".

ftp> put /users/test/test.prn /lp

MEMO ✎ *If the print data is specified by an absolute path, specify the transfer logical directory. There is no need to switch directories with the cd command.*

---

5. Log out from the Fast EtherNet using the quit command.

ftp> quit

Verification of the printer status

Three states, i.e., the IP address, login user name and transfer mode, can be verified using the quote command "stat".

In addition, by specifying the directory after the stat (lp, sjis, euc), the printer status can be verified.

Example: Displaying the Fast EtherNet status.

```
ftp> quote stat
211-FTP server status:
Connected to: 192.9.200.82.128.30
User logged in: guest
Transfer type: BINARY
Data connection: Closed.
211 End of status.
ftp>
```

Example: Displaying the Fast EtherNet status (directory name: lp)

```
ftp: quote stat /lp
211-FTP directory status:
Ready
211 End of status
ftp>
```

Chapter

6

Using with NetWare

Fast Ethernet 7100e+

Printing from NetWare

In order to print using a Novell Netware4.1 or NetWare3.1network environment, it is necessary to set up the NetWare server and the Fast EtherNet.

To make the configuration changes it is necessary to have file server administrator and supervisor authorization. This guide is intended for NetWare administrators with a basic knowledge of NetWare and its operating procedures. We suggest you read this in conjunction with the Novell NetWare manual.

About NetWare

You can print with the printer connected directly to a Novell NetWare network. For printing using NetWare4.1(NDS mode and bindery mode) or NetWare 3.1, the Fast EtherNet supports the following modes.

Print Server Mode

In print server mode: [1] a print job is stored in a print queue on the file server, [2] a printer running in print server mode will directly access the print queue and take the job, [3] the printing process is performed immediately. You do not need to have any other print server, whether on the file server or in the form of a workstation, because the printer acts as a print server.
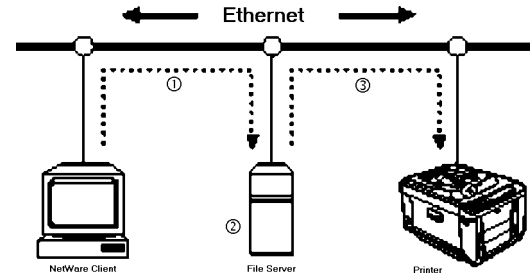
Remote Printer Mode

In remote printer mode: [1] a job is stored in a print queue on the file server, [2] the print server (either on the file server or a dedicated workstation) takes the job, and [3] transfers it to the printer allocated to the print queue. [4] The printer receives the job and the printing operation is performed. This mode uses the standard NetWare print function (PSERVER.NLM/EXE). The existing print server can be used.

<For PSERVER.NLM>

The file server functions as a print server.

<For PSERVER.EXE>
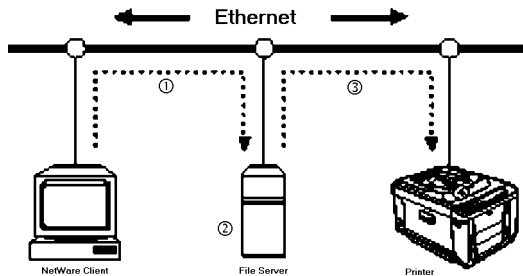
A personal computer is used as a dedicated print server unit.
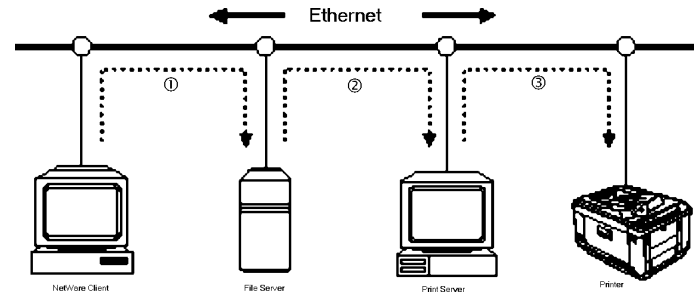
NetWare 4.1 Print Server Mode (NDS)

NetWare4.1 has an NDS network and a bindery network.

NDS Network

In order to use Netware4.1 print server mode via the NDS network, it is necessary to set up the file server and Fast EtherNet.

Note✍

> See later in this chapter for:
>
> • *using NetWare4.1 print server mode via the bindery network;*
>
> • *using NetWare4.1 remote print server mode;*
>
> • *using Netware3.1.*

The following example uses NetWare4. Some of the on-screen instructions and options may vary depending on the OS version and system configuration.

In this example, the Fast EtherNet is connected to the NetWare NDS tree "ODCSOFT", the admin user context "ENG7", the context "SOFT22.ENG7" for creating a print server, and the file server "SOFT22-NW44".

Starting PCONSOLE through NDS

For the purpose of this example we will use F: as the network drive name for logging in to the NetWare server.

1   Go to the context where admin exists ([ENG7] in this example), using the CX command.

    ```
    F:\>cx ENG7
    ```

2   Log in from the client to the file server ([SOFT22-NW4] in this example) using the admin authority.

    After entering Login, input your password.

    ```
    F:\>Login SOFT22-NW4/admin
    ```

3   Using the CX command, go to the directory in which a print server, a printer and a print queue is generated ([SOFT22]).

    ```
    F:\>cx SOFT22
    ```

4   Activate PCONSOLE.

```
F:\>pconsole
```

[Available Options] is displayed.

```
Available Options
Print Queues
Printers
Print Servers
Quick Setup
Change context
```

Generating Print Server, Printer and Print Queue

1   Select [Quick Setup] and then press the Enter key.

```
Available Options
Print Queues
Printers
Print Servers
Quick Setup
Change context
```

2   The print server name, printer name and print queue name
are automatically generated. Change them as necessary.
Input the print server name [8c-PSERVER], printer name
[P1] and print queue name [Q1-PS].

Note．*Set a banner type to suit the printer.*

```
Print Service Quick Setup
Print Server:          8C-PSERVER
New Printer:           P1
New Print Queue:       Q1-PS
Print Queue Volume:    SOFT22-NW4_SYS
Banner Type:           PostScript
Printer Type:          Parallel
Location:              Manual Load
Interruption:          Unavailable
                       (Polling Mode)
Port:                  LPT1
```

3   Press the ESC key until [Save changes?] is displayed, select
[Yes], and press the Enter key.

```
Save changes?
No
Yes
```

Closing PCONSOLE

1   Press the ESC key until the display shows [Exit?], select
[Yes] and press the Enter key.

```
Available Options
Exit?
No
Yes
```

2   Log out from the file server.

```
F:\>Logout
```

Configuring the Fast EtherNet

This section explains how to use the Standard Setup Utility for Windows. You can also make these changes using the Setup Utility on a Macintosh or via TELNET. Read the following description and choose the appropriate utility for your network environment.

Note✎

- *Use the utility when the NetWare file server and the print server are running normally.*

- *Ensure that the printer is switched on as the Fast EtherNet cannot be configured when the printer is off.*

This procedure assumes that the Standard Setup Utility has already been installed. For information on installing the utility, see "CHAPTER 7 Control of Fast EtherNet".

1   Select the Fast EtherNet to be configured from the list.

Note✎   *The Ethernet address is displayed on the Fast EtherNet self-diagnostics test. If there are many NetWare file servers, there may be cases where the list is not displayed. In that case, select [Environment Settings] in the [Options] menu and click the [NetWare] tab. Select [Specify network to be searched], enter the NetWare address where the Fast EtherNet exists, then click [Add]. If you click [Search for OKI Devices] in the [File] menu on the main screen, only the NetWare addresses you have specified will be searched.*

2   Select [OKI Device Setup] in the [Setup] menu.

3   Click [NetWare] tab.

4   Enter the following items on the NetWare setup screen.

Input the print server name. This must match the "Print server name" you created earlier (*8C-PSERVER* in this example).

Match this to the network type you use *(802.3 in this example)*.

Select "Print Server" (*PSERVER Mode*).

Input "Printer Name" (*P1* in this example). This must match the "Printer Name " you created earlier.

5   Click [Print Server Details…] on the NetWare setup screen, enter the following items, and click [OK].

Detail for PSERVER

File Server name

1	SOFT22-NW4	5	
2		6	
3		7	
4		8	

Password

Job Polling Time   4   (Second)

OK   Cancel

Input the "File Server Name" controlling the printer (*SOFT22-NW4* in this example). This must match "File Server" you logged in on earlier.

Set a password by which you log in to the file server. Enter this if you have set a password for the print server.

Specify the queue poll rate in seconds. 4 seconds should normally be used (default setting).

6   Click [NDS Settings] on the NetWare Setup screen, enter the following items, then click [OK].

NDS Mode Setup

☑ Bindery Mode

NDS Tree

OELSOFT

NDS Context

SOFT22.ENG7

OK   Cancel

Determine whether or not to enable the bindery mode. When you print only with NetWare 4.1 NDS, uncheck this. Unchecking this means the device cannot be used from NetWare4.1 bindery or NetWare3.1.

Enter the tree name in which the file server exists.

This must match "Tree Name" where the file server to which you logged in exists.

Specify the context in which the file server has been generated. This must match "Context Name" where you generated the print server, printer and print queue.

7 After all the settings are completed, click [Setup] on the NetWare Setup screen.

8 If the settings are correct, click [Yes]. The settings will be transmitted to the Fast EtherNet.

At this point, however, the Fast EtherNet is still operated using the previous settings.

9 Click [Yes] to reset the device.

If you select [No], the settings will become valid when the printer is next power cycled. Depending on the printer model used, you may need to power cycle it.

10 If the print server name you set is displayed on the [NetWare 4.1 console monitor] of the file server, connection to the file server is completed.

If it does not appear, try again to set the file server and Fast EtherNet from the beginning.

```
<NetWare4.1 Console Monitor>
NetWare 4.10 Console Monitor 4.12
Directory Tree "ODCSOFT" Server Name: "SOFT22-NW4"
Server Version: NetWare4.10-1998 March 31

General Information
Server Operating Hours: 30:09:47:40
Status of Use: 0%
————————————-
——————————


Active Connections
4 8C-PSERVER
1 SUPERVISOR
3 MIYAMOTO
```

"Information on Connection" screen from "Available Options"

NetWare 4.1 Print Server Mode (Bindery)

NetWare 4.1 has a NDS network and a bindery network.

Bindery Network

In order to use NetWare 4.1 print server mode with bindery, it is necessary to set up the file server and Fast EtherNet.

Note✎

- *To use the bindery service, it is essential to specify the bindery context in the file server. Make the following settings from the server console in advance:*

  ```
  For Bindery Context "OU=SOFT22.O=ENG7"
  set Bindery Context = OU=SOFT22.O=ENG7
  ```

- *For using the NetWare4.1 print server mode via the NDS network, see "Starting PCONSOLE through NDS" earlier in this chapter.*

- *For the NetWare 4.1 remote printer mode, see "NetWare 4.1 remote printer mode" later in this chapter.*

- *For using NetWare 3.1, see NetWare 3.1 environment later in this chapter.*

The following description uses NetWare 4.1 as an example. Some of the screen shots and options may vary depending on the OS version and system configuration.

In this example, the Fast EtherNet is connected to the NetWare NDS tree "ODCSOFT", the admin user context "ENG7", the context "SOFT22.ENG7" for creating a print server, and the file server "SOFT22-NW4".

Starting PCONSOLE on Bindery

For the purpose of this example we will use F: as the network drive name for logging in to the NetWare server.

1   Log in to the file server from the client using the bindery mode supervisor.

Log in to the file server "SOFT22-NW4" here.

After entering Login, input your password.

F:\>LoginSOFT22-NW4/supervisor/B

2   Start PCONSOLE.

F:\> pconsole

[Available Options] is displayed.

```
Available Options
Print Queues
Print Servers
Quick Setup
Change NetWare Server
```

Creating a Print Queue

1   Select [Print Queues] and press the Enter key.

```
Available Options
Print Queues
Print Servers
Quick Setup
Change NetWare Server
```

2   Press the Ins key to input a print queue name to be newly
     created ("Q-8C" in this example), then press Enter.

```
Print Queues
Q-8C

New Print Queue Name: Q8c
```

A print queue "Q8c" is generated.

Registering Print Server

1   Choose [Print Servers] and press the Enter key.

```
Available Options
Print Queues
Print Servers
Quick Setup
Change NetWare Server
```

2   The following message is displayed on the screen. Press the
     Enter key to proceed.

```
You are using bindery emulation on a NetWare 4
server. A DS print server will not be able to
access any configuration done here. If you
intend to run a NetWare 4 print Server on a
NetWare 4 Server, it should be created and
configured in DS mode.
Press <Enter> to continue.
```

3   Press the Ins key and input a print server name to be newly
     generated ("8C-PSERVER" in this example), then press
     Enter.

```
New Print Server Name: 8C-PSERVER
```

The print server "8C-PSERVER" is registered.

Creating a printer controlled by the Printer Server

1   Select the print server you generated ("8C-PSERVER") and press the Enter key.

```
Print Servers
8C-PSERVER
```

2   Select [Printers] and press the Enter key.

```
Print Server Information
Printers
Information and Status
User
Operator
Service Network Server
Description
Password
Monitor
```

3   Press the Ins key to input the printer name to be created ("OP8C" in this example), then press the Enter key.

```
Printer Name: OP8C
```

"OP 8C" is created.

Allocating Print Queues to Printers

1   Select the printer you have created ("OP8C")and press the Enter key.

Pre-defined Printers	No.	Status
OP8C	0	[c]

2   Select [Banner Type], then press the Enter key.

3   Choose [Text] or [PostScript] and press the Enter key.

```
Available Banner Types
Text
PostScript
```

4   Select [Print Queues Assigned], then press the Enter key.

5   Press the Ins key, select the print queue you have created ("Q-8C") from [Available Print Queues], then press Enter.

6   Input a priority value of "1" for the print queue and press the Enter key.

NetWare Server\Print Queue	Priority	Status
SOFT22-NW4•Q-8C	1	[c]

The print queue is allocated.

7   Press the ESC key until [Save changes?] is displayed. Select [Yes], then press the Enter key.

Restarting PCONSOLE on NDS Mode

The following configuration is required in order to make the queue generated in bindery mode available to other context users in NDS mode.
If other NDS context users do not need to use the device then the following configuration is not required. Proceed to "Setting Fast EtherNet".

1   Press the ESC key until [Exit?] is displayed on the screen, then select [Yes] and press Enter.

2   Log out from the file server.

    F:\> Logout

3   Using the CX command, go to the directory where admin is to be found ("ENG7" in this example).

    F:\> cx ENG7

4   Log in again to the file server ("SOFT22-NW4") in NDS mode as admin.

    After entering Login, input your password.

    F: >\Login SOFT22-NW4/admin

5   Using the CX command, go to the directory you specified in the bindery context ("SOFT22").

    F:\>cx SOFT22

6   Start PCONSOLE

    F:\>pconsole
[Available Options] is displayed.

Creating a Printer

1   Select [Printer] and press the Enter key.

2   Press the Ins key and input the printer name you created in bindery mode ("OP8C" in this example), then press the Enter key.

    `Printer: OP8C`

"OP8C" is created.

Allocating Print Queue to Printer

1   Select the printer you created ("OP8C") and press the Enter key.

2   Select [Banner Type] and then press the Enter key.

3   Select [Text] or [PostScript] and press the Enter key.

4   Select [Allocate Print Queue] and press the Enter key.

5   Press the Ins key, select the print queue you created in the bindery mode("Q-8C"in this example) from the [Object, Class] and press the Enter key.

```
Object, Class
....*                (Parent)
Q-8C         (Print Queue)
```

The print queue is allocated.

6   Press the ESC key until [Save changes?] appears on the screen, select [Yes], then press the Enter key.

Specifying Directory Users or Groups that can use the Print Queue

1   Select [Print Queues] from [Available Options] and press the Enter key.

```
Available Options
Print Queues
Printers
Print Servers
Quick Setup
Change Context
```

2   Select the print queue you created in the bindery mode ("Q8C" in this example), then press the Enter key.

3   Select [User] from [Print Queue Information] and then press the Enter key.

4   On the [Print Queue User] screen, press the Ins key. Select a User or a Group from [Object, Class] and press the Enter key.

```
Object, Class
...                        (Parent)
*                 (Current Context)
+NETWORK_G                  (Group)
+SOFT22                     (Group)
Admin                        (User)
miyamoto            (Administrator)
```

The user or group is registered.

Closing PCONSOLE

1   Press the ESC key until [Exit?] is displayed, then select [Yes]and press the Enter key.

2   Log out from the file server.

   F:\>Logout
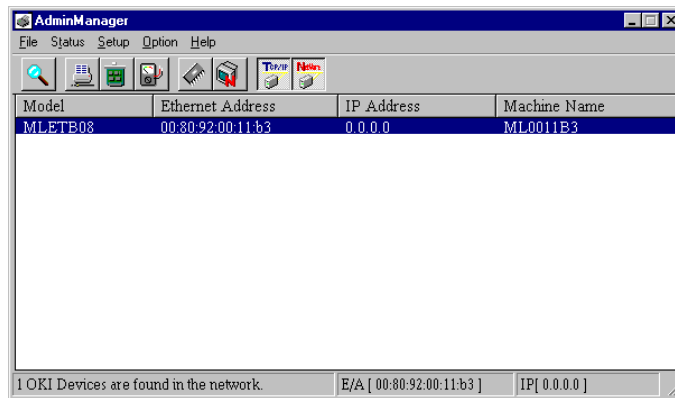
Configuring the Fast EtherNet

This section explains how to use the Standard Setup Utility for Windows. You can also make these changes using the Setup Utility on a Macintosh or via TELNET. Read the following description and choose the appropriate utility for your network environment.

Note✏

•   *Use the utility when the NetWare file server and the print server are running normally.*

•   *Ensure that the printer is switched on as the Fast EtherNet cannot be configured when the printer is off.*
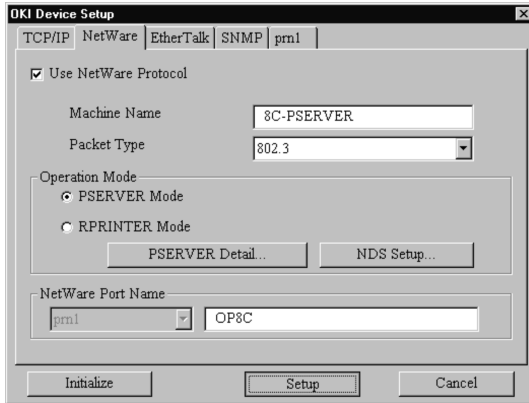
This procedure assumes that the Standard Setup Utility has already been installed. For information on installing the utility, see "CHAPTER 7 Control of Fast EtherNet".

1   Select the Fast EtherNet to be configured from the list.

Note✏   *The Ethernet address is displayed on the Fast EtherNet self-diagnostics test. If there are many NetWare file servers, there may be cases where the list is not displayed. In that case, select [Environment Settings] in the [Options] menu and click the [NetWare] tab. Select [Specify network to be searched], enter the NetWare address where the Fast EtherNet exists, then click [Add]. If you click [Search for OKI Devices] in the [File] menu on the main screen, only the NetWare addresses you have specified will be searched.*

2   Select [OKI Device Settings] in the [Setup] menu.

3   Click [NetWare] tab.

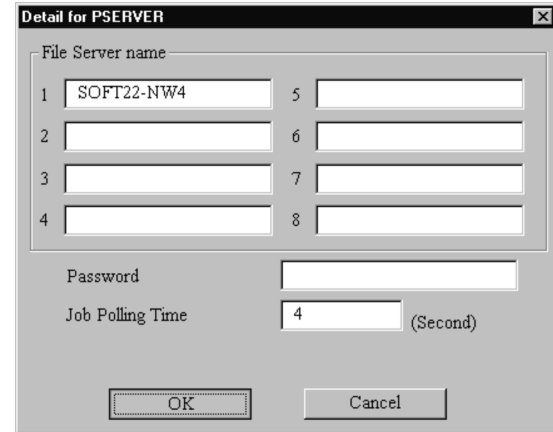4   Enter the following items on the NetWare setup screen.

Input the print server name (*8CPSERVER* in this example). This must match the "Print server name" you created earlier.

Select the network type you use (*802.3* in this example).

Select "Print Server" (*PSERVER Mode)*.

Input "Printer Name" (*08PC* in this example). This must match the "Printer Name" you created earlier.

5   Click [Print Server Details…] on the NetWare setup screen, enter the following items, and click [OK].

Input the "File Server Name" controlling the printer (*SOFT22-NW4* in this example). This must match "File Server" you logged in on earlier. Set a password by which you log in to the file server. Enter this if you have set a password for the print server.

Specify the queue poll rate in seconds. 4 seconds should normally be used (default setting).

6   Click [NDS Settings] on the NetWare Setup screen, enter the following items, then click [OK].

```
OKI Device Setup                                    ×
 TCP/IP  NetWare  EtherTalk  SNMP  prn1

  ☑ Use NetWare Protocol

     Machine Name          8C-PSERVER

     Packet Type           802.3              ▼

   ─Operation Mode──────────────────────────
     ⦿ PSERVER Mode

     ○ RPRINTER Mode
           PSERVER Detail...      NDS Setup...

   ─NetWare Port Name───────────────────────
     prn1     ▼    OP8C

     Initialize          Setup         Cancel
```

Determine whether or not to enable the bindery mode. When you print only with NetWare 4.1 NDS, uncheck this. Unchecking this means the device cannot be used from NetWare 4.1 bindery or NetWare 3.1.

Enter the tree name in which the file server exists (*ODCSOFT* in this example). This must match "Tree Name" where the file server to which you logged in exists.

Specify the context in which the file server has been generated (*SOFT22. ENG7* in this example). This must match "Context Name" where you generated the print server, printer and print queue earlier.

7   After all the settings are completed, click [Setup] on the NetWare Setup screen.

8   If the settings are correct, click [Yes]. The settings will be transmitted to the Fast EtherNet. At this point, however, the Fast EtherNet is still operated using the previous settings.

9   Click [Yes] to reset the device.

Note✎   *If you select [No], the settings will become valid when the printer is next power cycled. Depending on the printer model used, you may need to power cycle it.*

10 If the print server name you set is displayed on the [NetWare 4.1 console monitor] of the file server, connection to the file server is completed.

If it does not appear, try again to set the file server and Fast EtherNet from the beginning.

```
<NetWare4.1 Console Monitor>
NetWare 4.10 Console Monitor 4.12
Directory Tree "ODCSOFT" Server Name: "SOFT22-NW4"
Server Version: NetWare4.10-1998 March 31

General Information
Server Operating Hours: 30:09:47:40
Status of Use: 0%
──────────-
─────────


Active Connections
4 8C-PSERVER
1 SUPERVISOR
3 MIYAMOTO
```

"Information on Connection" screen from "Available Options"

NetWare 4.1 Remote Printer Mode

In order to use the NetWare 4.1 remote printer mode, it is necessary to set up the file server and the Fast EtherNet.

Note✐

> *See other relevant topics in this chapter for:*
>
> • *printing on the NetWare 4.1 print server mode through via NDS network;*
>
> • *printing on the NetWare 4.1 print server mode via the bindery network;*
>
> • *using NetWare 3.1.*

The following description uses NetWare 4.1 as an example. Some of the on-screen indications or options may vary according to the OS version and system configuration.

In this example, the Fast EtherNet is connected to the NetWare NDS tree "ODCSOFT", the admin user context "ENG7", the context "SOFT22.ENG7" for creating a print server, and the file server "SOFT22NW4".

Starting PCONSOLE through NDS

For the purpose of this example we will use F: as the network drive name for logging in to the NetWare server.

1   On the client, go to the context where admin exists ("ENG7" in this example), using the CX command. After entering Login, input your password.

        F:\>cx ENG7

2   Log in to the file server ("SOFT22-NW4" in this example) by using the admin authority. After entering log-in, input your password.

        F:\>Login SOFT22-NW4/admin

3   Using the CX command, go to the directory where you generate the print server, printer and print queue ("SOFT22" in this example).

        F:\>cx SOFT22

4   Start PCONSOLE.

        F:\>pconsole

[Available Options] is displayed.

Generating Print Server, Printer and Print Queue

1 Select [Quick Setup] and press the Enter key.

2 The print server name, printer name and print queue name are generated automatically. Change them as required.

Input the print server name "8c-PSERVER", printer name "P1" and print queue name "Q1-PS" in this example.

Note✎ *The banner type is generated according to the printer.*

```
    Print Service Quick Setup
Print Server:        8C-PSERVER
New Printer:         P1
New Print Queue:     Q1-PS
Print Queue Volume:  SOFT22-NW4_SYS
Banner Type:         PostScript
Printer Type:        Parallel
Location:            Manual Load
Interruption:        Unavailable
                     (Polling Mode)
Port:                LPT1
```

3 Press the ESC key until [Save changes?] is on the screen, then select [Yes] and press the Enter key.

Closing PCONSOLE

1 Press the ESC key until [Exit?] is displayed. Select [Yes], then press the Enter key.

2 Log out from the file server.

```
F:\>Logout
```

Starting the Print Server on File Server

1 Use the file server console to start the print server.

If the print server has already been running, check that no-one is using it before restart it.

```
: LOAD PSERVER
```

2 On the [Input Print Server Name] screen, press the Enter key to select the print server name you generated (*previous page*) from [Details of current context] and then press the Enter key. In this example, select "8C-PSERVER" from context "SOFT22.ENG7".

```
Current Context
SOFT22.ENG7
Details of Current Context
.
..
8C-PSERVER
```

3   The print server is started.

Select [Printer Status] in [Available Options] and press the
Enter key.

```
Available Options
Printer Status
Print Server Information
```
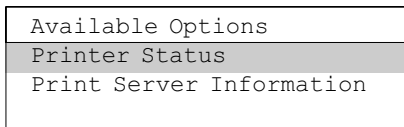
4   Choose the printer name you generated earlier
("P1.SOFT22.ENG7" in this example) is chosen from [Printer
List]. Press the Enter key.

Printer Status is displayed. Here, the [Current Status] should
be [Printer Not Connected].

```
Printer:FP1.SOFT22.ENG7
Type: F Manual Load (Remote), LPT1

Current Status: Printer Not Connected
```
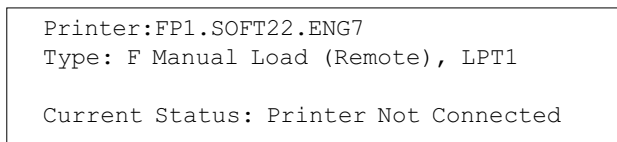
Check the status of printer connection
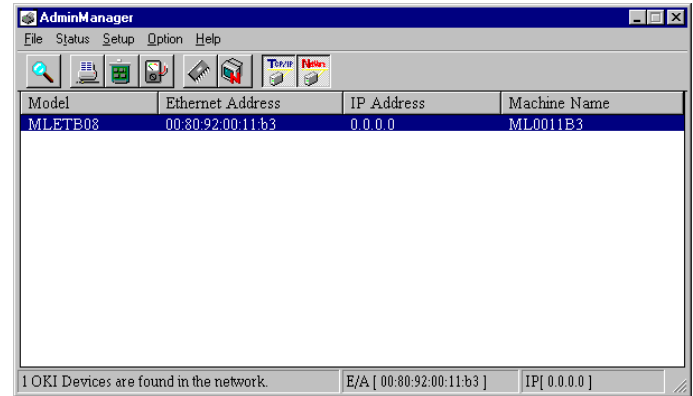
Configuring the Fast EtherNet

This section explains how to use the Standard Setup Utility for Windows. You can also make these changes using the Setup Utility on a Macintosh or via TELNET. Read the following description and choose the appropriate utility for your network environment.

Note✒

• *Use the utility when the NetWare file server and the print server are running normally.*

• *Ensure that the printer is switched on as the Fast EtherNet cannot be configured when the printer is off.*

This procedure assumes that the Standard Setup Utility has already been installed. For information on installing the utility, see "CHAPTER 7 Control of Fast EtherNet".
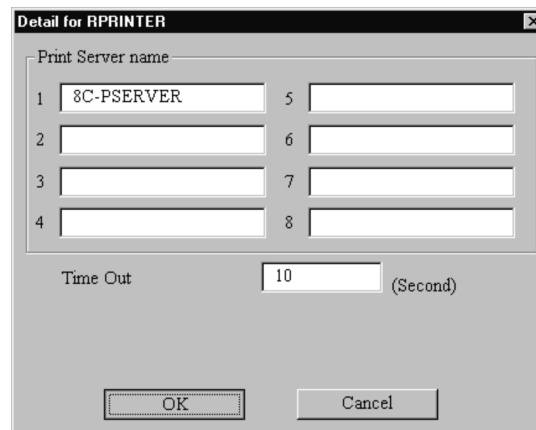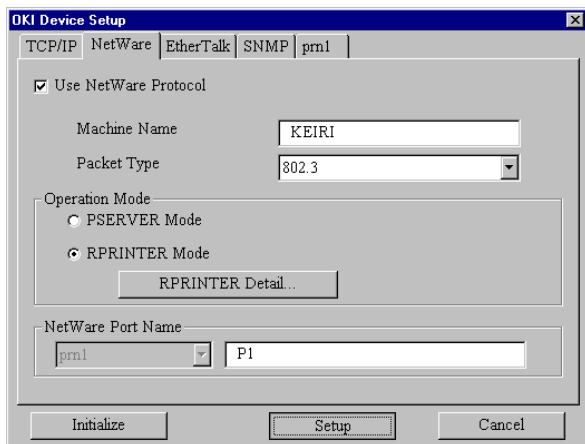
1 Select the Fast EtherNet to be configured from the list.

Note✒ *The Ethernet address is displayed on the Fast EtherNet self-diagnostics test. If there are many NetWare file servers, there may be cases where the list is not displayed. In that case, select [Environment Settings] in the [Options] menu and click the [NetWare] tab. Select [Specify network to be searched], enter the NetWare address where the Fast EtherNet exists, then click [Add]. If you click [Search for OKI Devices] in the [File] menu on the main screen, only the NetWare addresses you have specified will be searched.*

2   Select [OKI Device Settings] in the [Setup] menu.

3   Click [NetWare] tab.

4   Enter the following items on the NetWare setup screen.

Input the print server name (*8CPSERVER* in this example). This must match the "Print server name" you created earlier

Enter the network type you use (*802.3* in this example).

Select "Print Server" (*RPRINTER*).

Input "Printer Name" (*P1* in this example). This must match the "Printer Name " you created on earlier.

5   Click [Remote Printer Details] on NetWare setting screen, enter the following items, then click [OK].

Enter the "Print Server Name" controlling the printer (*8C-PSERVER*). This must match the "Print Server Name" you generated earlier.

Enter the timeout setting for the release of the printer port. This should normally be 10 seconds (default).

6   When all the settings are finished, click [Setup] on the NetWare setup screen.

7   If the settings are correct, click [Yes]. The settings are transmitted to Fast EtherNet. At this point, however, Fast EtherNet is still operating according to the previous settings.

8   Click [Yes] to reset the Fast EtherNet.

Note✐

- *If you select [No], the new settings will take effect after the printer is power cycled.*

- *You may have to power cycle (switch off, then on again) the printer depending on the model.*

9   When [Current Status] changes to [Waiting for Print Job], the printer is ready.

If the status does not change to [Waiting for Print Job], set the file server and Fast EtherNet again from the beginning.

<Print Server Status>

```
Printer: P1.SOFT22.ENG7
Type•: Manual Load (Remote), LPT1

Current Status: Waiting for Print Job
```

Check the status of printer connection

NetWare 3.1 Environment

Under NetWare 3.1, both print server mode and remote printer mode are supported. Although the procedures for setting the file servers are the same, there is a difference in the configuration of the Fast EtherNet. This section describes the settings for the file server and Fast EtherNet required to print in the NetWare3.1 environment.

Note✐

See earlier in this chapter for:

*   *using the NetWare 4.1 print server mode via the NDS network;*

*   *using the NetWare 4.1 print server mode via the bindery network;*

*   *NetWare 4.1 remote printer mode.*

In the following description, NetWare 3.1 is used as an example. Some of the on-screen indications and options may vary according to the OS version and system configuration.

In this example, the Fast EtherNet is connected to the file server "SOFT22-NW312".

Starting PCONSOLE

For the purpose of this example we will use F: as the network drive name for logging in to the NetWare server.

1   On the client machine, log in to the file server ("SOFT22-NW312") as supervisor.

    F:\>LOGIN SOFT22-NW312/supervisor

2   Start PCONSOLE

    F:\>pconsole

[Available Options] is displayed

```
Available Options
Change File Server
Print Queue Information
Print Server Information
```

Generating Print Queue

1   From the [Available Options], select [Print Queue Information] and press the Enter key.

2   Press the Ins key. Enter the new print queue name to be generated ("Q8C" in this example), then press the Enter key.

```
New Print Queue Name: Q8C
```

The print queue "Q8C" is generated.

Generating Printer Server

If you use an existing print server, the following settings are not required. Proceed to "Generate Printer controlled by Print server".

1   From the [Available Options], select [Printer Server Information] and press the Enter key.

2   Press the Ins key to enter a new print server name to be generated ("8C-PSERVER" in this example), and press the Enter key.

```
New Print Server Name: 8C-PSERVER
```

The print server name "8C-PSERVER" is registered.

Generating Printer controlled by Print Server

1   From the [Available Options], select [Printer Server Information] and press the enter key.

2   Select the print server you generated ("8C-PSERVER"), then press the enter key.

3   Select [Print Server Configuration] and press the Enter key.

4   Select [Printer Configuration], then press the Enter key.

5   Select a printer number to which no printer is installed, and press the Enter key. In this example [Not Installed 0] is selected.

```
Configured Printers
Not Installed 0
Not Installed 1
Not Installed 2
Not Installed 3
Not Installed 4
Not Installed 5
```

6   Enter the remote printer name ("OP8C") in the [Name] column.

```
Environment Settings for Printer 0

Name: OP8C
Type: Pre-defined

Identifier by Company:
IRQ:
Buffer Size (K bytes):

Paper for Starting:
Queue Service Mode:

Baud Rate:
Data Bit:
Stop Bit:
Parity:
X-On/X-Off Worked or Not Worked
```

7   Select [Type] and press the Enter key. [Printer Type] is displayed. Select [Remote Parallel, LPT1], then press the Enter key.

```
Printer Type
Local Parallel, LPT1
Local Parallel, LPT2 Local Parallel, LPT3
Local Serial, COM1
Local Serial, COM2
Local Serial, COM3
Local Serial, COM4
Remote Parallel, LPT1
Remote Parallel, LPT2
Remote Parallel, LPT3
```

8   Press the Esc key until [Save changes?] is displayed, then select [Yes] and press the Enter key.

The printer "OP8C" is generated on printer no. 0.

Allocating Print Queue to Printer

1   Select "Queues Serviced by Printer" and press the Enter key.

```
    Print Server Configuration Menu
    File Server Assigned
    Printer Notification List
    Queues Serviced by Printer
    Printer Configuration
```

2   Select from "Pre-defined Printers" the printer to which a print queue is to be allocated ("OP8C"). Press the Enter key.

3   Press the Ins key to select the print queue to be allocated to the printer ("Q8C"). Press the Enter key.

4   Enter the priority for the print queue.

The print queue and its priority is assigned.

For allocating several print queues, repeat steps 3 and 4.

```
    File Server      Queue       Priority
    SOFT22-NW312     Q8C         1
```

Closing PCONSOLE

Press the Esc key until [Exit?] appears on the screen, then select [Yes].

Printing in Print Server Mode

1   Use the utility to set the Fast EtherNet.

2   Follow the procedure for "Setting Fast EtherNet" via the bindery network in NetWare 4.1 print server mode earlier in this chapter.

Printing in Remote Print Mode

1   Start the print server ("8C-PSERVER" in this example) on the file server console.

:LOAD PSERVER 8C-PSERVER

If the print server has already been running, check that no-one is using it before restart it.

:UNLOAD PSERVER :LOAD PSERVER 8C-PSERVER

2   Set the Fast EtherNet using the utility.

Follow the procedure for "Setting Fast EtherNet" in NetWare 4.1 remote printer mode earlier in this chapter.

Chapter

Management of the Fast EtherNet

7

Fast Ethernet 7100e+

Management of the Fast EtherNet

The Fast EtherNet can be configured from a computer on the network. This procedure will now be explained.

Using a Web Browser

If [the Fast EtherNet] is connected to the network with TCP/IP, the Fast EtherNet settings and the printer menu settings can be configured using a Web Browser such as Microsoft Internet Explorer or Netscape Navigator.

Use a Web Browser which meets the following conditions:

· *Microsoft Internet Explorer Ver.3.0. or higher*

· *Netscape Navigator Ver.3.0. or higher*

Refer to the specific Web Browser manual on how to launch the Web Browser.

Note✐

- · *There is no operation assurance on other Web Browser than those mentioned above.*

- · *The Fast EtherNet has to be connected to the network with TCP/IP.*

- · *In order to change the configuration, the user must login as "root".*

- · *The password of the "root" user when the Web Browser is used is the last 6 digits of the EtherNet address. This password cannot be changed.*

The following explanation relates to an example in which the printer is OKIPAGE 8c(PS), Windows98 and Microsoft Internet Explorer Ver.4.0 are used.
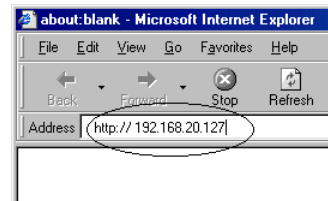
1. Configure the IP address, subnet mask and gateway in the Fast EtherNet.

   For details, refer to "Configuring the IP address in the Fast EtherNet" (Page 14).

2. Launch the Web Browser, type in the IP address of the Fast EtherNet in the "Address (Location / Position)" and press the Enter key.

<If the IP address is 192.168.20.127>

http:// 192.168.20.127

The Printer Status screen is displayed.

---

3. Click on the items you want to change in the left frame. The details screen of each item is displayed. For the details, see "Configuration Items" (Page 97).
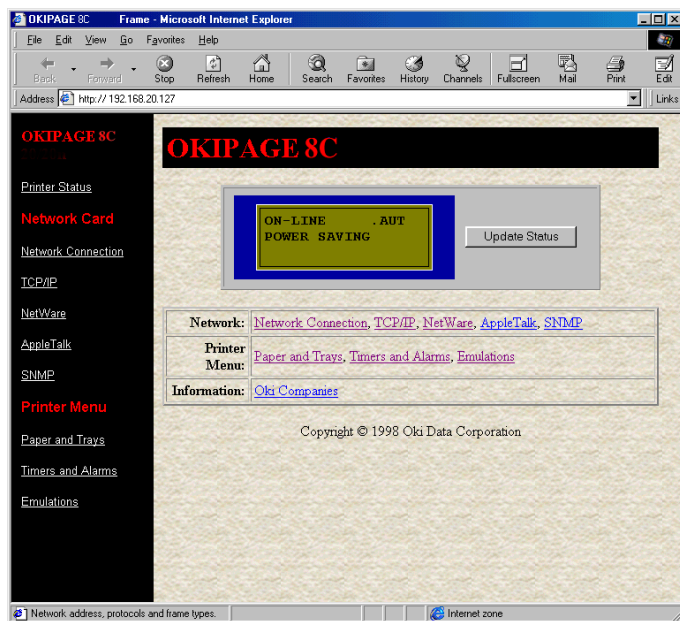
Note✐

If Microsoft Internet Explorer is used

·	*In order to validate the "Status renewal" button of the "Printer status" screen, select "Internet Options" under the "View" menu of Microsoft Internet Explorer, click on "Settings" under the "Temporary Internet files" on the "General" tab, and select "Every visit to the page" under "Check for newer versions of stored programs". Configure the same settings in the Web Browser used.*

If Netscape Navigator is used

·	*In order to validate the "Status renewal" button of the "Printer status" screen, select "Settings" of the "Edit" menu of Netscape Communicator4.04J, click on "Cache" under "Details" and set "Once per session" under "Document in cache is compared to document on network. Configure the same settings in the Web Browser used.*

·	*If the size of the Web Browser is changed immediately after changing the configuration, the dialog "Security information" may be displayed. In such a case, uncheck the "Display this message next time" in the dialog. Configure the same settings in the Web Browser used.*

4. After making the necessary changes, click on "Submit".
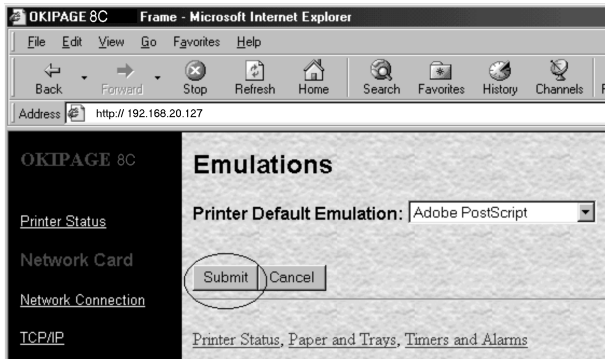
5. Type "root" in "User name" and the last 6 digits of the EtherNet address in "Password", and click on "OK".
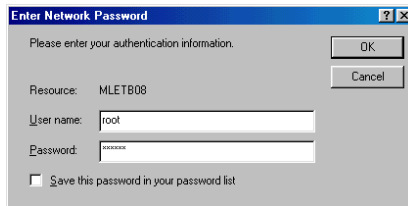

Note✎ *If the EtherNet address is "00:80:92:01:00:D2", type in "0100D2" as the password. On the screen, ****** will be displayed.*

MEMO ✎ *The EtherNet address (MAC address) will be displayed in the print menu of the printer.*

Once the new values set are transmitted to the Fast EtherNet, the following screen is displayed. If a different message is displayed, reconfirm if the values set are appropriate.
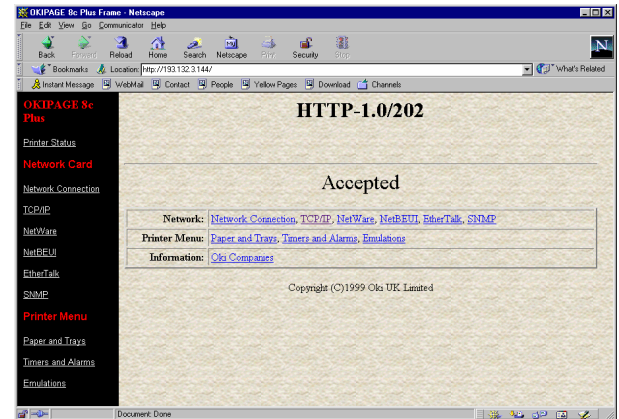
6. In order to validate the new values set, turn the printer off and then on again.
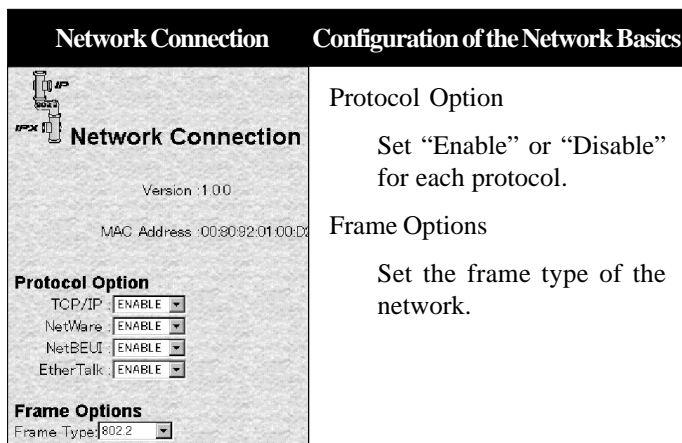
Note✎ *If the printer is not turned off and then on again, the Fast EtherNet will continue to use the pre-transmission setting values. Make sure to turn the printer off and then on again.*

Configuration items

For the details of each item, refer to "Contents of the Fast EtherNet settings" (Page 131).

Note✐ *The configurable items may vary from one printer to another.*

Network Connection	Configuration of the Network Basics

Network Connection
 	
Version :1.0.0
 	
MAC Address :00:80:92:01:00:D0
 	
Protocol Option
TCP/IP : ENABLE
NetWare : ENABLE
NetBEUI : ENABLE
EtherTalk : ENABLE
 	
Frame Options
Frame Type: 802.2
	Protocol Option
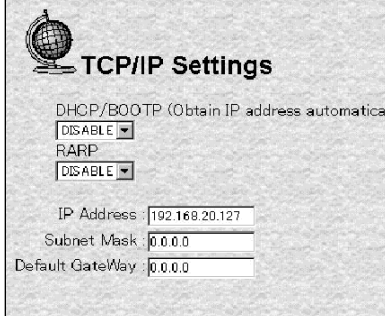	
	    Set "Enable" or "Disable" for each protocol.
	
	Frame Options
	
	    Set the frame type of the network.

TCP/IP Settings   Configuration of the TCP/IP protocol

DHCP/BOOTP

If the IP address is automatically obtained using a DHCP/BOOTP server, set "Enable". If a direct IP address is typed in, set "Disable".

RARP

    If the IP address is automatically obtained using a RARP server, set "Enable". If a direct IP address is typed in, set "Disable".

IP Address, Subnet Mask, Default GateWay

    Type in the IP address, subnet mask and gateway allocated to the Fast EtherNet, with 10 digits each "***.***.***.***". If a DHCP/BOOTP server or RARP server is used, there is no need to configure the settings.

NetWare Settings	Configuration of the NetWare protocol

NOVELL® **NetWare Settings**

NetWare Mode: PSERVER

NetWare Mode

Determine if the operation mode of the Fast EtherNet is a print server mode (PSERVER) or a remote printer mode (RPRINTER).

Print Server Mode	Configuration when the Fast EtherNet is used in the print server mode

Print Server Mode

NetWare Print Server Name: "ML0100D2" (1-31 characters)
Password: (1-31 characters)
Job Polling Rate: 4 (2-255 seconds)
Maximum Number of File Servers: 8
Bindery Mode: ENABLE

NDS

Tree Name: "" (1-3...)
Context: "" (1-7...)

File Servers for PServer Mode:

No.	File Server Name (1-31 characters)
1	""

NetWare Print Server Name

(Machine name)

In the print server mode, type in the "Print server name" recorded on the file server. Make sure that it is consistent with the print server name recorded on the file server. The print server name can be up to 31 alphanumeric characters long.

Password

In the print server mode, this is the password used to log into the file server. Make sure it is consistent with the password set on the file server. The password can be up to 31 alphanumeric characters long.

Job Polling Rate

In the print server mode, indicate the interval of validating the print queue status. If the value set is small, more burden will be loaded on the network. If the value set is high, the printing response will deteriorate. Normally use the default. The value set is between 2 and 255 seconds.

Bindery Mode

In the print server mode, if used from the NW4.1J bindery or NW3.12J, make sure that "Enable" is selected [for the bindery mode]. Select "Disable" only when using the NW4.1J NDS.

Tree Name

In the print server mode, type in the "Tree name" which is in the file server. The tree name can be up to 31 alphanumeric characters long.

Context

In the print server mode, type in the "Context name" which created the print server. The context name can be up to 31 alphanumeric characters long.

File Server Name

In the print server mode, type in the "File server name" which manages which manages the printer. Up to 8 file servers can be set. The file server names can be up to 31 alphanumeric characters long.

Remote Printer Mode	Configuring for the remote printer mode

Remote Printer Mode

Printer Name for R-Printer Mode: `"ML0100D2-prn1"` (1-31 character
Job Timeout `10` (4-255 seconds)
Maximum Number of Print Servers: 8

No.	PrintServer Name (1-31 characters)
1	`""`

Printer Name for R-Printer Mode

In the remote printer mode, type in the "Printer name" recorded in print server. Make sure that it is consistent with the printer name recorded in the print server. The printer name can be up to 31 alphanumeric characters long.

Job Timeout

In the remote printer mode, the time period which lapses between the reception of the last printing until the job is completed and the port of the Fast EtherNet released . If the value set is too short, if the packet is transmitted late printing may be disrupted. If the value is too high, it affects jobs of other protocols. Normally use the default. The value set is between 4 and 255 seconds.

PrintServer Name

In the remote printer mode, type in the "Print server name" which manages the printer. Up to 8 print servers can be set. The print server name can be up to 31 alphanumeric characters long.

NetBEUI Settings	Configuring the NetBEUI protocol

NetBEUI Settings

Computer Name: `"ML0100D2"` (1-15 characters)
Workgroup Name: `"PrintServer"` (1-15 characters)
Comment: `"EthernetBoard MLETB08"` (1-48 characters)

Computer Name

Type in the computer name of the Fast EtherNet. The computer name can be up to 15 alphanumeric characters long.

Workgroup Name

Type in the work group name. The work group name can be up to 15 alphanumeric characters long.

Comment

For comments. The comment can be up to 1485 alphanumeric characters long.

EtherTalk Settings

EtherTalk Zone Name: `"*"` (1-32 characters

EtherTalk Printer Name: `"ML0100D2"` (1-32 characters

EtherTalk Printer Type: `"LaserWriter"`

EtherTalk Zone Name

In order to change the zone in which the printer resides, type in the new zone name. The zone name can be up to 32 alphanumeric characters long.

EtherTalk Printer Name

In order to change the printer name shown in the Selector, type in the new printer name. The printer name can be up to 32 alphanumeric characters long.

MIB-II category

Authentic community

Set the authentic community name. The authentic community name can be up to 15 alphanumeric characters long.

Trap community

Type in the trap community name. The trap community name can be up to 15 alphanumeric characters long.

Trap IP Address

Type in the trap IP address. If the IP address is 0.0.0.0, a trap will not be issued.

SysContact

Set the MIB-II SysContact (manager name). The manager name can be up to 78 alphanumeric characters long.

SysName

Set the MIB-II SysName (product name). The product name can be up to 78 alphanumeric characters long.

SysLocation

Set the MIB-II SysLocation (installation location). The installation location can be up to 78 alphanumeric characters long.

Default TTL

Set the IP packet lifetime (TTL value). The value set should be between 0 and 255 seconds.

Enable AuthenTrap

Determine whether to enable or disable the authentication violation trap.

To enable set "Enable" and to disable set "Disable".

Printer Trap Category

Printer Trap Community Name

Set with up to 71 alphanumeric characters long.

Protocol Address

TCP #n

Type in the trap IP address in the case of TCP/IP. Up to 5 addresses can be set. If the value typed is "0.0.0.0", a trap will not be issued.

IPX

Type in HEX as the trap IP address in the case of IPX. Only 1 address can be set. If you type in "00000000:000000000000", a trap will not be issued.

Trap Type

Determine if each of the Trap Enable, Online, Offline, Paper Out, Paper Jam, Cover Open and Printer Error will be used or not.

Change the configuration of the printer menu.

Note✐ *The configurable items may vary from one printer to another.*

Paper and Trays	Paper feed and paper size
	Set the paper size, the paper thickness, etc., of each tray.

Timers and Alarms	
	Set the Auto Page Eject Time, Power Save Time, etc.

Emulations	Emulations

Set the printer emulations.

Using TELNET

The Fast EtherNet can be configured using the TELNET related to the workstation.

Note

- · *In order to change the Fast EtherNet configuration, the user must login as "root".*

- · *The factory setting of the password of the "root" user is "None".*

- · *If you type in a wrong IP address the network may go down or other severe damage may occur. Set the configuration only after consulting your network manager.*

In the following explanation, SunSolaris2.4 is used as an example. The method of configuring each command may differ from one workstation to another. Refer to your workstation's manual.

1. Log in as root on the workstation.

Note *If it is not possible to log in with super-user authorization, leave the configuration to the network manager.*

2. Using the APR command, set a temporary IP address on the Fast EtherNet.

Example: If the IP address is "192.168.20.127" and the Fast EtherNet address is "00:80:92:01:00:D2" [then enter]

```
# arp -s 192.168.20.127 00:80:92:01:00:D2 temp
```

MEMO

The EtherNet address (MAC Address) is displayed in the print menu of the printer. If an IP address was already set in the Fast EtherNet, there is no need to set a temporary address using the ARP command.

3   Use the ping command to confirm the connection with the Fast EtherNet.

Example: If the IP address is "192.168.20.127", [type]

```
#ping 192.168.20.127
```

Note *If there is no reply, then there is a problem with the IP address configured under Step 2 or with the condition of the network. Consult your network manager.*

4   Log into the Fast EtherNet using TELNET.

Example: Logging in the Fast EtherNet when the IP address is "192.168.20.127"

```
telnet 192.168.20.127
Trying 192.168.20.127
Connected to 192.168.20.127
Escape character is '^]'.
Fast EtherNet 7100e Plus Ver 1.0.0. TELNET
server.
Copyright 1999 (c) Oki Data Corporation
Copyright 1999 (c) Japan Computer Industry Inc.
login: root
'root' user needs password to login.
password:
User 'root' logged in.

No.  Message          Value       (level .1)
 1 : Setup TCP/IP
 2 : Setup SNMP
 3 : Setup NetWare
 4 : Setup EtherTalk
 5 : Setup NetBEUI
 6 : Setup printer port
 7 : Display Status
 8 : Setup printer trap
97 : Reset to factory set
98 : Quit setup
99 : Exit setup
Please select (1-99)?
```

5. Type in the number of the items changed. The details screen of each item is displayed.

6. Login from the Fast EtherNet.

In order to enable new settings, turn the printer off and then on again.

Note✒ *If the printer is not turned off and then on again, the Fast EtherNet will continue to use the pre-transmission setting values. Make sure to turn the printer off and then on again.*

Configuration items

See "Contents of the Fast EtherNet settings" (Page 131) for the
details of each item.

Main screen

```
  No.  Message          Value      (level .1)
   1 : Setup TCP/IP
   2 : Setup SNMP
   3 : Setup NetWare
   4 : Setup EtherTalk
   5 : Setup NetBEUI
   6 : Setup printer port
   7 : Display Status
   8 : Setup printer trap
  97 : Reset to factory set
  98 : Quit setup
  99 : Exit setup
  Please select (1-99)?
```

```
Display status
1 : prn1
2 : system
Please select (1-2)?
```

```
Please select(1 - 2)? 1
prn1    :
Ready
```

```
Please select(1 - 2)? 2
MLETB08 Version 1.0.0
TCP/IP status
  IP address  : 192.168.20.127
  Subnet Mask : 255.255.255.0
  Gateway addr: 192.168.20.254
NetWare status
  NWPrint mode: Failed
EtherTalk status
  Zone Name    : *
  Type Name    : LaserWriter
  Object Name : ML0100D2
NetBEUI status
  Computer Name :    ML0100D2
  Workgroup Name     PrintServer
  Master Browser     ML0100D2
```

97: Resets the Fast EtherNet settings to the
factory settings.

98: Returns to the previous screen without
changing the Fast EtherNet settings.

99: Returns to the previous screen after
changing the Fast EtherNet settings.

TCP/IP configuration screen

```
Please select(1-99)?_1

No.  Message           Value
------------------------------------
 1 : TCP/IP protocol    : ENABLE
 2 : IP address         : 192.168.20.127
 3 : Subnet mask        : 255.255.255.0
 4 : Gateway address    : 192.168.20.254
 5 : RARP protocol      : DISABLE
 6 : DHCP/BOOTP protocol: DISABLE
 7 : root password      : ""
99 : Back to prior menu
Please select(1 - 99)?_
```

Displayed if [1] is selected in the main screen. Configure if TCP/IP is used.

NetWare configuration screen

```
Please select(1-99)?_3

No.  Message           Value
------------------------------------
 1 : NetWare protocol   : ENABLE
 2 : Packet type        : 802.2
 3 : NetWare mode       : PSERVER
 4 : Setup PSERVER mode
 5 : Setup RPRINTER mode
99 : Back to prior menu
Please select(1 - 99)?_
```

Displayed if [3] is selected in the main screen. Configure if NetWare is used.

SNMP configuration screen

```
Please select(1-99)?_2

No.  Message           Value
------------------------------------
 1 : Authentic community :"******"
 2 : Trap community      :"public"
 3 : Trap address        :0.0.0.0
 4 : SysContact          :""
 5 : SysName             :""
 6 : SysLocation         :""
 7 : DefaultTTL          :255
 8 : EnableAuthenTrap    :2
99 : Back to prior menu
Please select(1 - 99)?_
```

Displayed if [2] is selected in the main screen. Configure if SNMP is used.

Note! *In EnableAuthenTrap, 1 is Enable and 2 is Disable.*

NetWare print server mode configuration screen

Displayed if [4] is selected in the NetWare configuration screen. Configure if the NetWare print server mode is used.

```
Please select(1-99)?_4

No. Message              Value
-----------------------------------
 1 : FSERVER name 1      : ""
 2 : FSERVER name 2      : ""
 3 : FSERVER name 3      : ""
 4 : FSERVER name 4      : ""
 5 : FSERVER name 5      : ""
 6 : FSERVER name 6      : ""
 7 : FSERVER name 7      : ""
 8 : FSERVER name 8      : ""
 9 : Machine name        : "ML0100D2"
10 : Password            : ""
11 : Job polling interval: 4
12 : Bindery mode        : ENABLE
13 : NDS tree            : ""
14 : NDS context         : ""
99 : Back to prior menu
Please select(1 - 99)?_
```

NetWare remote printer mode configuration screen

Displayed if [5] is selected in the NetWare configuration screen. Configure if the NetWare remote printer mode is used.

```
Please select(1-99)?_5

No. Message              Value

-----------------------------------
 1 : PSERVER name 1      : ""
 2 : PSERVER name 2      : ""
 3 : PSERVER name 3      : ""
 4 : PSERVER name 4      : ""
 5 : PSERVER name 5      : ""
 6 : PSERVER name 6      : ""
 7 : PSERVER name 7      : ""
 8 : PSERVER name 8      : ""
 9 : Job timeout         : 10
99 : Back to prior menu
Please select(1 - 99)?_
```

EtherTalk configuration screen

Displayed if [4] is selected in the main screen. Configure if EtherTalk is used.

```
Please select(1-99)? 4

No.  Message              Value

-------------------------------------
 1 : EtherTalk protocol  : ENABLE
 2 : Zone Name           : "*"
99 : Back to prior menu
Please select(1 - 99)?
```

NetBEUI configuration screen

Displayed if [5] is selected in the main screen. Configure if NetBEUI is used.

```
Please select(1-99)? 5

No. Message               Value
-------------------------------------
 1 :NetBEUI protocol    : ENABLE
 2 :Computer name       : "ML0100D2"
 3 :Workgroup name      : "PrintServer"
 4 :Comment             : "EthernetBoard MLETB08"
99 :Back to prior menu
Please select(1 - 99)?
```

Printer port configuration screen

Displayed if [6] is selected in the main screen. Configure the printer port.

Note✐ *Numbers 5 through 11 function only if a postscript printer is used. Do not use them for other printers.*

```
Please select(1-99)?_6

No.Message             Value
------------------------------------
 1:NetWare port name  : "ML0100D2-prn1"
 2:EtherTalk port name: "ML0100D2"
 3:BOJ string         : ""
 4:EOJ string         : ""
 5:BOJ string(euc/sjis): ""
 6:EOJ string(euc/sjis): "\x04"
 7:Printer type       : PS
 8:TAB size    (char.) : 8
 9:Page width (char.) : 78
10:Page length(line)  : 66
11:lpr/ftp banner     : NO
99:Back to prior menu
Please select(1 - 99)?_
```

Printer trap configuration screen

Displayed if [8] is selected in the main screen. Configure the printer trap.

```
Please select(1-99)?_8

No.Message            Value
------------------------------------
 1:Prn-Trap community: "public"
 2:Setup TCP#1 trap
 3:Setup TCP#2 trap
 4:Setup TCP#3 trap
 5:Setup TCP#4 trap
 6:Setup TCP#5 trap
 7:Setup IPX trap
99:Back to prior menu
Please select(1 - 99)?_
```

TCP Trap configuration screen

Displayed if [2] to [6] are selected in the printer trap configuration screen. Configure the printer trap when using TCP/IP.

```
Please select(1-99)?_2

No.Message          Value
-------------------------------------
 1 :TCP#1 Trap enable : DISABLE
 2 :On-line trap      : DISABLE
 3 :Off- line trap    : DISABLE
 4 :Paper Out trap    : DISABLE
 5 :Paper Jam trap    : DISABLE
 6 :Cover Open trap   : DISABLE
 7 :Printer Error trap: DISABLE
 8 :TCP#1 Trap address: 0.0.0.0
99 :Back to prior menu
Please select(1 - 99)?_
```

IPX Trap configuration screen

Displayed if [7] is selected in the printer trap configuration screen. Configure the printer trap. Configure the printer trap when using IPX.

Note✐ *Type in the IPX Trap address and IPX Trap net using HEX.*

```
Please select(1-99)?_7

No.Message          Value
-------------------------------------
 1 :IPX Trap enable   : DISABLE
 2 :On-line trap      : DISABLE
 3 :Off- line trap    : DISABLE
 4 :Paper Out trap    : DISABLE
 5 :Paper Jam trap    : DISABLE
 6 :Cover Open trap   : DISABLE
 7 :Printer Error trap: DISABLE
 8 :IPX Trap address  : "000000000000"
 9 :IPX Trap net      : "00000000"
99 :Back to prior menu
Please select(1 - 99)?_
```

Using standard setup utility (Windows)

It is possible to set up the Fast EtherNet from a PC running TCP/IP or IPX/ SPX using the Standard Setup Utility for Windows supplied with the Fast EtherNet.

Operating environment

A PC with Windows 98/95 or Windows NT Server4.0/Workstation4.0, running TCP/IP or IPX/SPX (NetWare).

Note✍

- *Operation on any system other than the above cannot be guaranteed.*

- *This utility cannot be used on a PC which cannot be connected to the network with TCP/IP or IPX/SPX.*

- *This utility must be used on a PC which is located on the same segment as the printer.*

Setting up and using the utility

The following procedure uses Windows98 as an example. Please have the "Fast EtherNet CD-ROM" ready.

1   Insert the "Fast EtherNet CDROM" into the PC's CD-ROM drive. The Setup Utility starts automatically.

Note✍   *If it does not start automatically, double-click [AUTO RUN.EXE] in the [WINDOWS] folder on the CD-ROM.*

2   Click [UK English]. The [Setup Utility] screen will be displayed.

Note✎ *Selecting any language other than [UK English] may affect the system.*

3   Click [OKI Device Standard Setup].

4   Select [Execute from CD-ROM] or [Start after Installing].
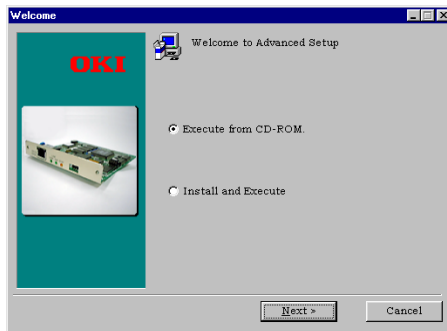
5   [AdminManager] will start up.
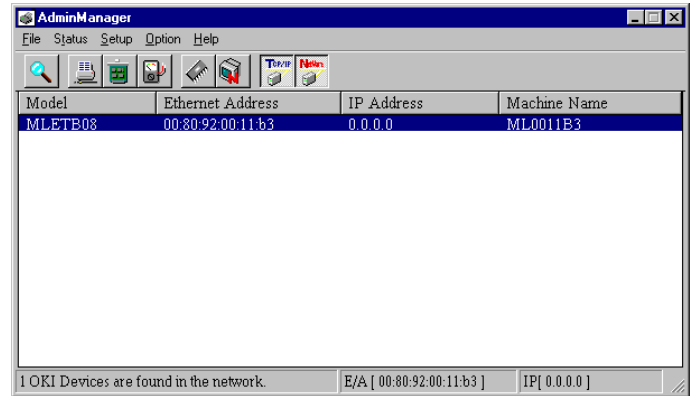
Note✎ *If you select [Start after Installing], follow the instructions on the screen to continue setup. Select [Start] - [Program] - [OKI Setup Utility] - [AdminManager]. To delete the utility, select [Uninstall].*

6   Select the Fast EtherNet to set up from the Ethernet address
     list. Then select [OKI Device Setup] from the [Setup] menu.

Note✐

- *The Ethernet address is displayed in the Fast EtherNet self-diagnostics test print.*

- *If you are using TCP/IP protocol, the Fast EtherNet may not be listed if its IP Address has never been configured. In this case, select [IP Address Setup] from the [Settings] menu and set the IP Address. Then search for the address again.*
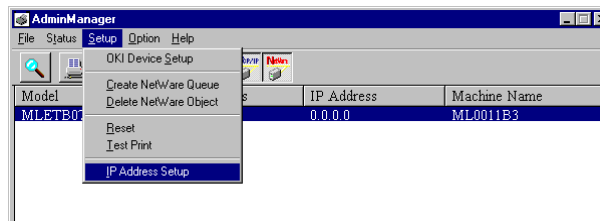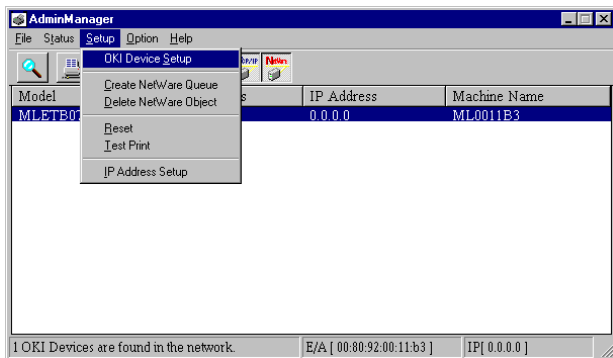
- *If you are using IPX/SPX protocol, the Fast EtherNet may not be listed if there are many NetWare file servers. In this case, select [Environment Setup] from the [Options] menu, then [NetWare] tab to register the IPX network address where the Fast EtherNet is located. Then search for the address again.*
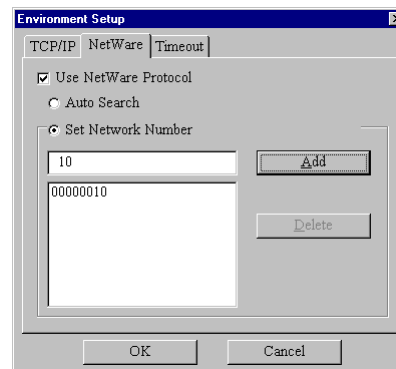
7   Enter the required items and click [Setup].
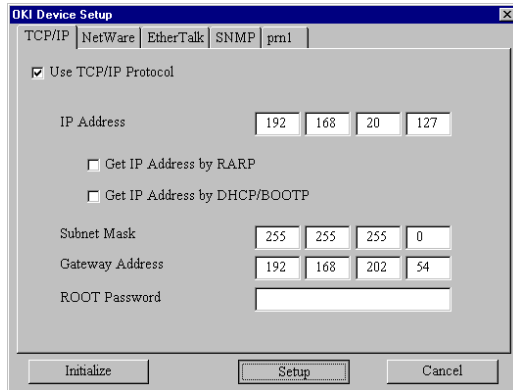
8   If the settings are correct, click [Yes]. The new settings will be transmitted to the Fast EtherNet.
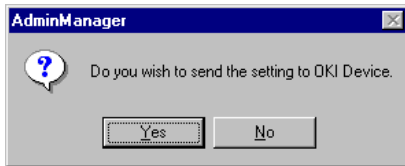
Note✒ *At this point, the Fast EtherNet is still operating with the previous settings.*

---

9   Click [Yes] to make the new settings take effect. For details of each item, see "Fast EtherNet Settings" at the end of this chapter.

Note✒ *If you select [No], the new settings will take effect when you turn the printer off and then back on again.*

TCP/IP setup screen

NetWare setup screen

1 Set whether TCP/IP is used.

2 Enter the IP Address in the format: "###.###.###.###".

3 Check the boxes if the address is to be acquired from RARP or DHCP/ BOOTP.

4 Enter the subnet mask in the format: "###.###.###.###".

5 Enter the gateway address in the format: "###.###.###.###". If you do not use a router or gateway, enter "0.0.0.0".

6 Enter the ROOT Password.

Enter the printer name, frame type, operating mode, NetWare port name, etc.

EtherTalk setup screen

1 Set whether EtherTalk is used.

2 Enter the new printer name if you change the printer name used by Chooser.

3 Enter the new zone name if you want to move your printer to a different zone.

SNMP setup screen

1 Enter the authentic community name and trap community name.

2 Enter the IP address for trap notice as "###.###.###.###". If you do not use traps, enter "0.0.0.0".

3 Enter SysContact, SysName and SysLocation.

4 This is the IP packet TTL value. This should not normally be changed.

5 Check box if a trap should be issued when an authorization error occurs.

Printer port setup screen
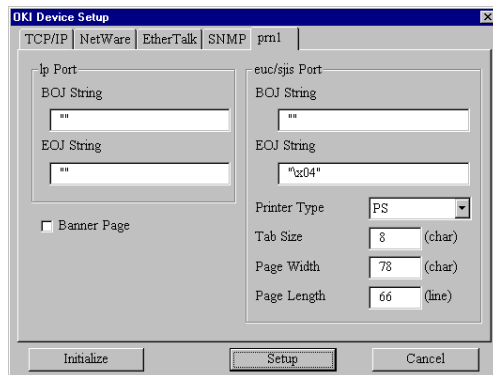
1   The character string transmitted to the printer before and after sending print data to the direct output port (lp).

2   The character string transmitted to the printer before and after sending print data to the output port via a Kanji filter (sjis or euc).

3   Fixed as PS

4   Enter the tab size, page width and page length of the output port via a Kanji filter (sjis or euc).

Note✎ *[Kanji Conversion Output Settings] are available only for postscript printers.*
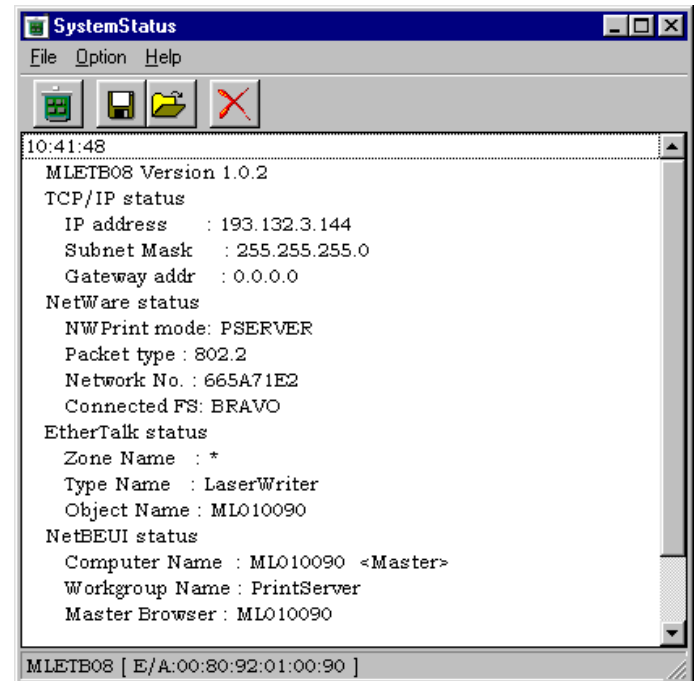
5   Set whether a banner page is printed. This item is valid only for TCP/IP protocol.
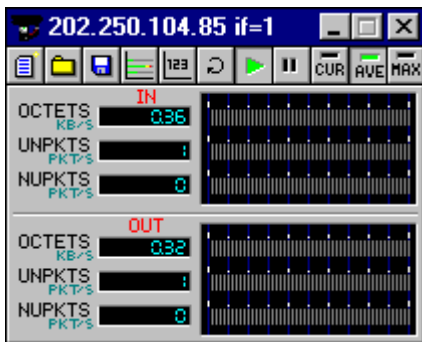
Printer status
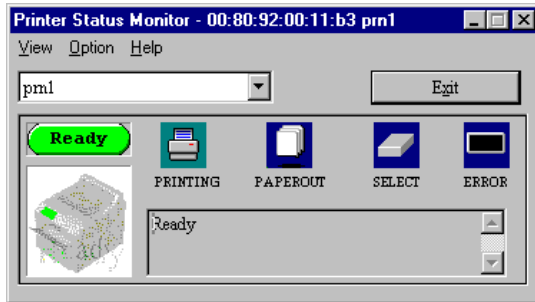
Select [Printer Status] from the [Status] menu. The current printer status will be displayed.

System status

Select [System Status] from the [Status] menu. The current Fast EtherNet settings will be displayed. This information can also be stored as a log file.

NetMeter

Select [NetMeter] from the [Status] menu. The real-time network load status will be displayed. For details such as the setting method, see "Help" on each NetMeter screen. When starting it from the CD-ROM, "Help" screens will be in English.

Note✎ *NetMeter is free software, and its operation cannot be guaranteed.*

Creating NetWare queues

NetWare print queues can be created on a NetWare Server.

Note✎

- *NetWare Client32 or IntranetWare Client should be on the same PC as the Standard Setup Utility is used. Once installed you will be able to log in to the NetWare NDS network and bindery network.*

- *You should log in to each server as a user who has the authority to create objects.*

- *In NetWare 4.1 remote printer mode, queues must be created in NDS mode. It is not possible in bindery mode.*
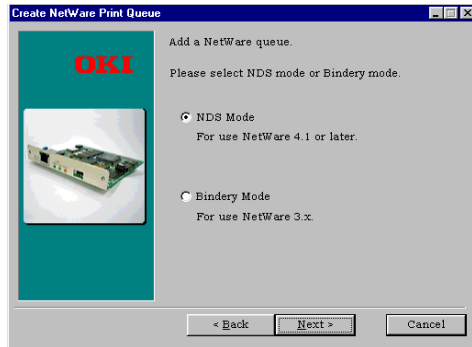
1   Select an Fast EtherNet, then go to [Create NetWare Queue] in the [Setup] menu.
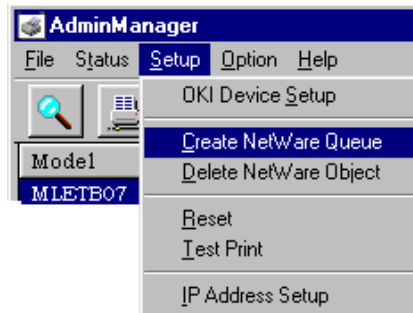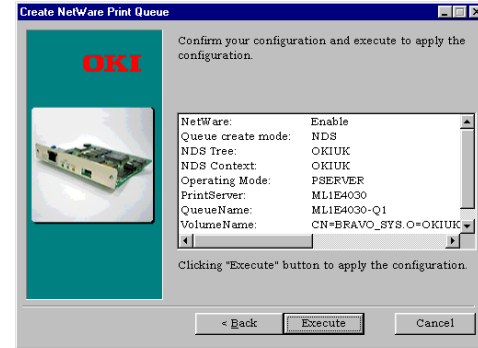
2   Click [Next].
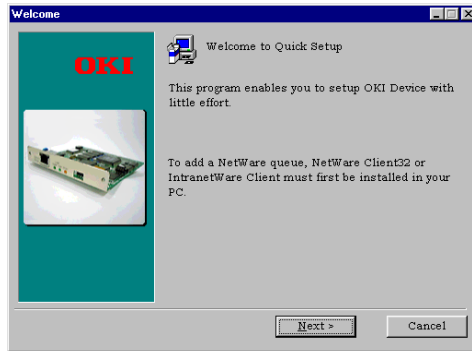
3   Select [NDS Mode] or [Bindery Mode] depending on the network environment.

4   Follow the screen instructions to create a NetWare queue.

5   Check the setting details. If they are correct, click [Execute]. The settings will be transmitted to the NetWare Server.

6   Click [Finish].

7   Select [OKI Device Settings] to continue the Fast EtherNet setup.

Deleting NetWare objects

Print servers, print queues and printers created on the NetWare server can be deleted.

Note✎

• *NetWare Client32 or Intranet Ware Client should be added to a PC where the Standard Setup Utility is used, which allows you to log in to the NetWare NDS network and bindery network.*

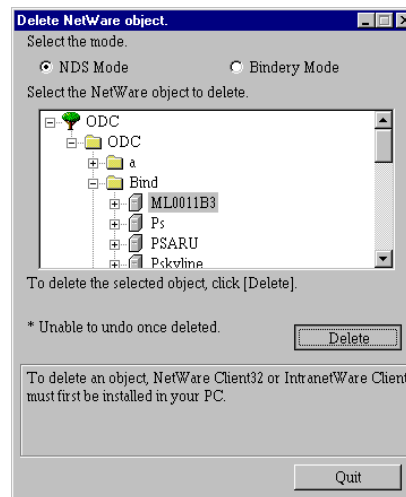• *You should log in to each server as a user who has the authority to delete objects.*

1   Select an Fast EtherNet and select [Delete NetWare Object] from the [Setup] menu.
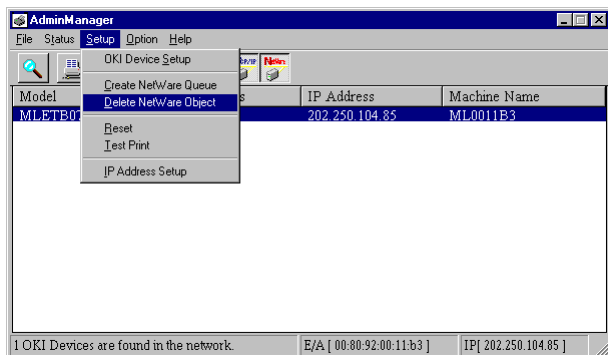
2   Select [NDS Mode] or [Bindery Mode], then the object to be deleted. If the object may be deleted, click [Delete].

Note✎ *Once an object is deleted, you cannot restore it. Take care when selecting the object.*

3   Click [Quit].

Configuring IP addresses

If a PC running the Standard Setup Utility uses only TCP/IP protocol, the Fast EtherNet may not be listed on the main screen if its IP address has never been configured. Use the following procedure to set the IP address.

Note✐ *Please make a note of the Ethernet Address before proceeding with this setup. The Ethernet Address will be displayed on the Fast EtherNet Self-diagnostic Test.*

1   Select [Set IP Address] from the [Setup] menu.
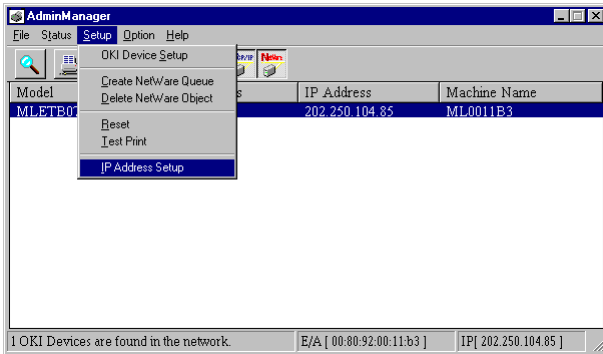
2   Enter the Fast EtherNet's "Ethernet Address" and "IP Address", then click [OK]. The settings will be transmitted to the Fast EtherNet.
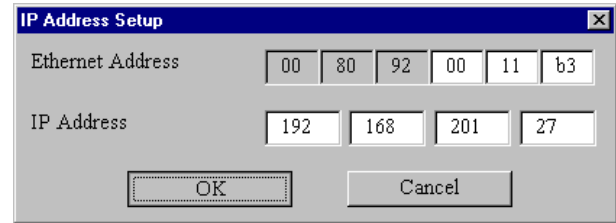
3   To enable the IP Address, click [Yes].
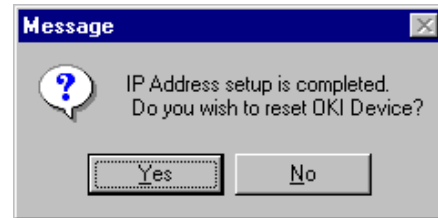
Note✐ *If you select [No], the new setting will take effect when you turn the printer off and then back on again.*

Environment setup

Select [Environment Setup] from the [Options] menu.

TCP/IP

Set the broadcast address for searching the Fast EtherNet with TCP/IP.

NetWare

Set the NetWare network number for searching the Fast EtherNet with NetWare. If there are many NetWare file servers, specify the number of the network where the Fast EtherNet is located.
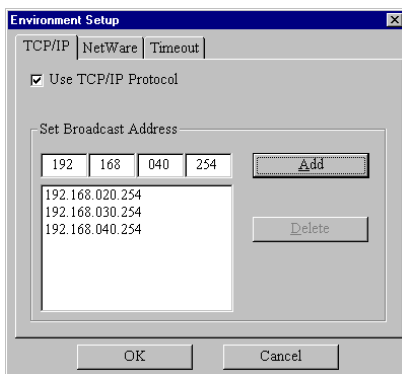
Note: *If you uncheck [Use TCP/IP Protocol], the search will not be conducted with TCP/IP.*
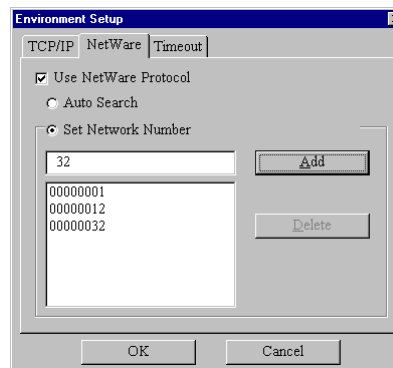
Note: *If you uncheck [Use NetWare Protocol], the search will not be conducted with NetWare. If [Auto Search for Network] is selected, only the networks which are available will be searched.*

Timeout

Polling Time - Set the time for polling the response from the Fast EtherNet (in seconds).
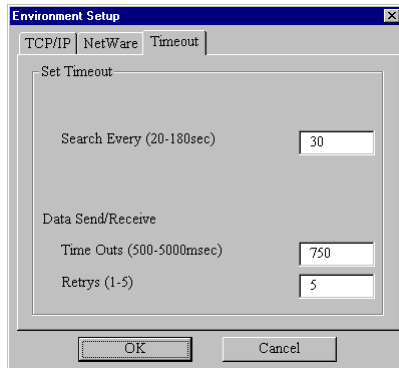
Timeout - Set the timeout for data transmission between AdminManager and the Fast EtherNet (in seconds).

Retry Time - Set the number of times to retry data transmission between Admin Manager and the Fast EtherNet.

Using quick setup utility (Windows)

It is possible to set up the Fast EtherNet from a PC running TCP/IP or IPX/ SPX using the Quick Setup Utility for Windows supplied with the Fast EtherNet.

Operating environment

A PC with Windows98/95 or Windows NT Server 4.0/Workstation4.0, running TCP/IP or IPX/SPX (NetWare).

Note✐

- *Operation on any system other than the above cannot be guaranteed.*

- *This utility cannot be used on a PC which cannot be connected to the network with TCP/IP or IPX/SPX.*

- *This utility must be used on a PC which is located on the same segment as the printer.*

Setting up and using the utility

The following procedure uses Windows 98 as an example. Please have the "Fast EtherNet CD-ROM" ready.

1   Insert the "Fast EtherNet CDROM" into the PC's CD-ROM drive. The Setup Utility starts automatically.

Note✎   *If it does not start automatically, double-click [AUTO RUN.EXE] in the [WINDOWS] folder on the CD-ROM.*

2   Click [UK English].

Note✎   *Selecting any language other than [UK English] may affect the system.*
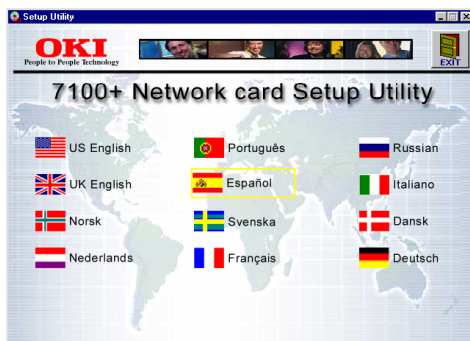
3   The [Setup Utility] screen will be displayed.

4   Click [OKI Device Quick Setup].

5   Follow the instructions on the screen to configure the Fast EtherNet.
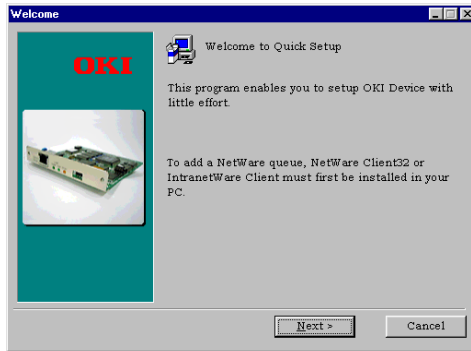
6   Check the setting details. If the settings are correct, click [Run]. The new settings will be transmitted to the Fast EtherNet.
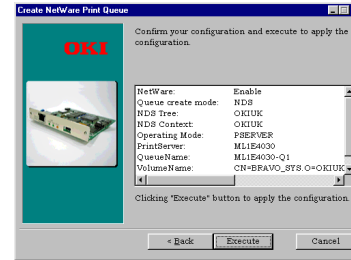
Note *At this point, the Fast EtherNet is still operating with the previous settings.*

7   Click [Finish] to make the new settings take effect.
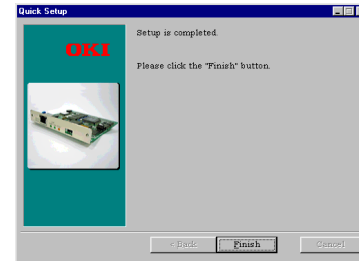
Note *You may need to switch the printer, depending on the model, off and then back on again.*

Using setup utility (Macintosh)

It is possible to set up the Fast EtherNet from a Macintosh running TCP/IP, using the Setup Utility for Macintosh that comes with the Fast EtherNet.

Operating environment

A Macintosh using System 7.1.2 or later, running TCP/IP.

Note✎

- *This Setup Utility does not operate on a Macintosh with an operating system earlier than System 7.1.2.*

- *TCP/IP is required also for Macintosh. Select [TCP/IP] in Control Panels to set each address. Instead of [TCP/IP], there may be [MacTCP] in Control Panels, depending on the OS version. For details, see your Macintosh manual.*
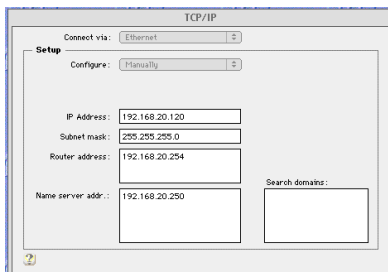
Setting up and using the utility

Please have the "Fast EtherNet CD-ROM" ready. The following procedure uses MacOS8.5 as an example.

1. Insert the "Fast EtherNet CDROM" into the Macintosh. Double-click [Setup Utility] in [Mac] - [ENGLISH] folder.

Note✎ *It may also be copied onto the Macintosh hard disk and double-clicking to start it up.*

2. Click [OK]. After searching for Fast EtherNets, a result list will be displayed.

3   Select the Fast EtherNet you wish to set up from the address list.
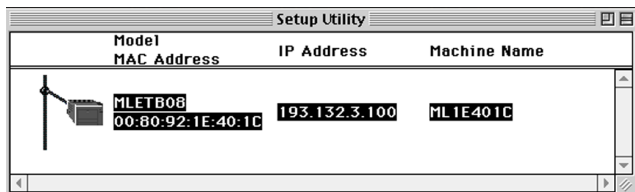
The Ethernet address is displayed in the Fast EtherNet self-diagnostics test print.

4   Select [Printer Server Setup] from the [Setup] menu.
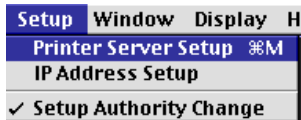
Note✎ *If you have never configure the IP address on the Fast EtherNet, the screen below will be displayed. Give a temporary address to set a print server. This address will be cancelled when the printer is turned off.*
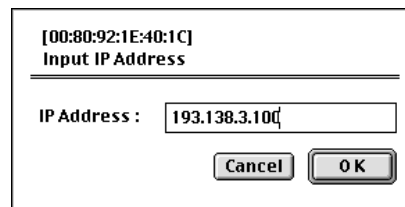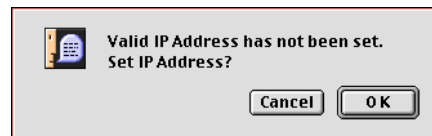
5   Enter the [ROOT] user password and click [OK]. (Leave blank for default).
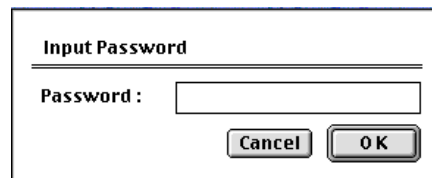
6   Enter the required items, and click [End Setup].

7   If the settings are correct, click [OK]. The new settings will be transmitted to the Fast EtherNet.

Note✐   *At this point, the Fast EtherNet still operates with the previous settings.*
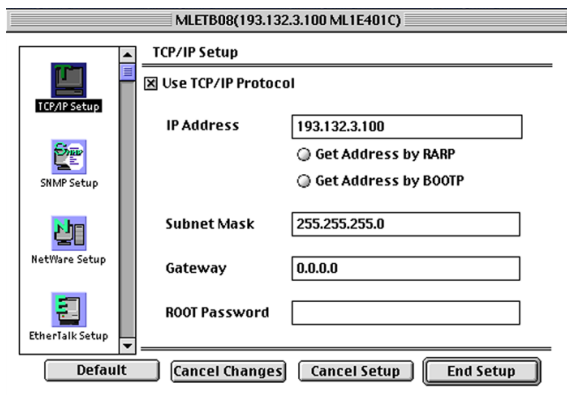
8   To enable the new settings, click [OK] and power cycle the printer. For details of each setting, see "Fast EtherNet Settings".

TCP/IP setup screen

1 Set whether TCP/IP is used.

2 Enter the IP address in the format: "###.###.###.###".

3 Check here if IP address is to be acquired from RARP or DHCP/ BOOTP.

4 Enter the subnet mask in the format: "###.###.###.###".

5 Enter the gateway address in the format: "###.###.###.###". If you do not use a router or gateway, enter "0.0.0.0".

6 Enter the ROOT password.

SNMP setup screen

1 Enter the authentic community name and trap community name.

2 Enter IP address for trap address as "###.###.###.###". If you do not use traps, enter "0.0.0.0".

3 Enter SysContact, SysName and SysLocation.

4 This is the IP packet TTL value. This should not normally be changed.

5 Check this option if a trap is to be issued in cases of authorisation error.

NetWare setup screen
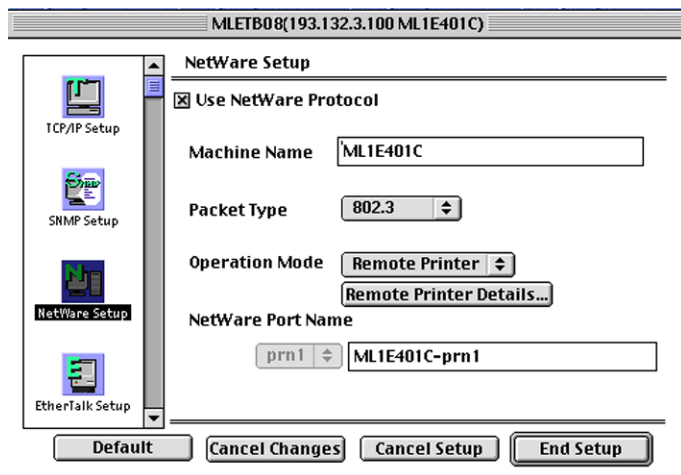
Enter the printer name, packet type, operating mode, NetWare port name and so on.

EtherTalk setup screen
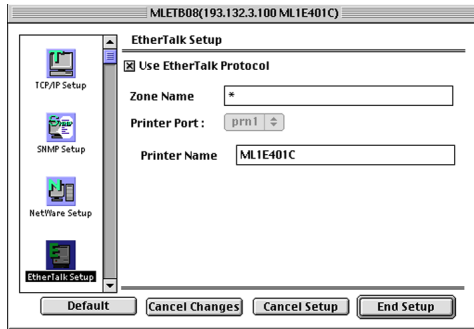
1 Set whether EtherTalk is used.

2 If you want to move your printer to a different zone, enter the new zone name.

3 Enter a new printer name to change the printer name used by Chooser.

Printer port setup screen
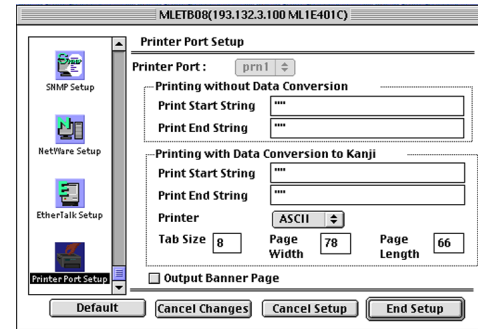
1 This is the character string transmitted to the printer before and after sending print data to the direct the output port (lp).

2 This is the character string transmitted to the printer before and after sending print data to the output port via a Kanji filter (sjis or euc).

3 Fixed as PS

4 Enter the tab size, page width and page length for the output port via a Kanji filter (sjis or euc).

Note✎ *[Kanji Conversion Output Settings] are available only for postscript printers.*

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5 Set whether a banner page is printed. This item is valid only for TCP/IP protocol.

Using JetAdmin

Some JetAdmin functions are supported.
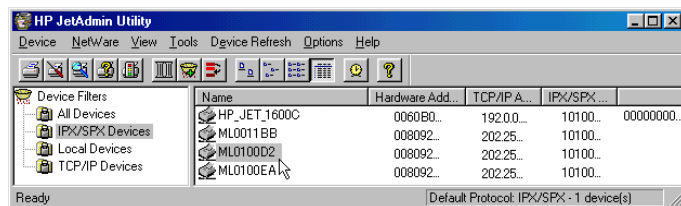
Functions supported by JetAdmin

- On the main screen, the printer name will be listed under [Name], the Ethernet address under [Hardware Address], and the IP Address under [TCP/IP Address].

- In an environment from which the NetWare server can be logged in to, select [New] from the [Device] menu to acquire the Ethernet board as a new device.

- The following items can be configured in [Modify] in the [Device] menu.

- In [Device Information] you can set [Print Server Name] and [Description].

- Pressing [Next] takes you to the NetWare screen where the NDS tree and context information can be added.

- Under [Operating Mode], either [Queue Server Mode] or [Remote Printer Mode] can be selected.

- In [Remote Printer Mode] the Print Server, (Only if its name has 30 characters or less) and Printer number details have to be added.

- Under [Queues] section, you can register bindery mode queues. (This can be done only if the print server name has 30 characters or less).

- Pressing [Next] takes you to [TCP/IP] screen where automatic [DHCP], [BOOTP] or [Manual TCP/IP Setting] can be selected. If manual IP setting is selected then IP Address, Subnet Mask, Default Gateway and idle timeout settings must be configured.

- Go to [Option] – [AppleTalk] to alter [Apple Talk Name].

- The following items can be configured in [Properties] in the [Device] menu. Select the [Device] tab to view printer status. In the [JetDirect] tab, go to [Reset JetDirect Card] to reinitialise or reset card back to default settings. Select [Frame Type] to match what frame type your network uses. Select [Protocol Stack] to select [Windows/NT, HPUX, SunOS] or [EtherTalk]. Select [Time Interval] to set [Queue Polling Rate].

Using SNMP

The Fast EtherNet is equipped with an SNMP agent which runs on UDP. The printer can be controlled using an SNMP Manager. The Fast EtherNet supports SNMPv1, MIB-II and OKI Data Private MIB. For OKI Data Private MIB, please use the file appropriate to your printer, referring to "readme.txt" in the MIB folder on the "Fast EtherNet CD- ROM".

The default values for SNMP settings are as follows:

Items	Value
Authentic Community Name	Public
Trap Community Name	Public
Trap IP Address	0.0.0.0
SysContact	None
SysName	None
SysLocation	None
TTL Value (IP packet survival time)	255
Authentic Error Trap	2(disabled)

The default values for printer trap settings are as follows.

Items	Value
Printer Trap Notice	DISABLE
Trap Type	LOCAL
Address (UDP)	0.0.0.0
Address (IPX)	00000000:000000000000

Fast EtherNet settings

The Fast EtherNet parameters and their values are described bellow.

Note✏ *Some functions may not be used, depending on your printer type.*

The settings in Italics indicates Fast EtherNet default settings

IItems	Function	Setup Value
TCP/IP		
TCP/IP protocol	Set TCP/IP Protocol for Ethernet Board.	ENABLE : To use thefunction. DISABLE: Not to use the function.
IP address	Set IP Address for Ethernet Board. Enter the value in a decimal system as "***.***.***.***". For RARP or DHCP/BOOTP, IP Address setting is not required because it will be set dynamically.	Default value 0.0.0.0.
Subnet mask	Set Subnet Mask for Ethernet Board. Enter the value in a decimal system as "***.***.***.***".	Default value 0.0.0.0.
Gateway address	Set Gateway Address for Ethernet Board. Enter the value in a decimal system as "***.***.***.***".	Default value 0.0.0.0.
RARP protocol	Set whether RARP requirement (i.e.dynamic IP Address acquisition) is conducted at Printer start-up.	ENABLE : To use the function. DISABLE: Not to use the function.
DHCP/BOOTP protocol	Set whether DHCP or BOOTP requirement (i.e. dynamic IP Address acquisition) is conducted at Printer start-up.	ENABLE : To use the function. DISABLE: Not to use the function.
ROOT password	Set the root user password needed to change Ethernet Board settings using TELNET or other utilities. Enter the password in 7 alphabets or numbers	Default value None.

SNMP		
Authentic community	Enter the Authentic Community Name, which is a maximum of 15 characters/numbers. The set value will be displayed as "*********".	Default value public
Trap community	Enter the Trap Community Name, which can be up to 15 characters/numbers.	Default value public
Trap address	Enter the Trap Notice Address. IP Address ,0.0.0.0, is invalid.	Default value 0.0.0.0.
SysContact	Set MIB-II SysContact.This can be up to 79 characters/numbers.	Default value None
SysName	Set MIB-II SysName.This can be up to 79 characters/numbers.	Default value None

Items	Function	Setup Value
SysLocation	Set MIB-II SysLocation. This can be up to 79 characters/numbers.	Default value None
DefaultTTL	Set IP Packet Existing Value (TTL Value). Normally, use the default value. The value may vary from 0 to 255 sec.	Default value 255 sec.
EnableAuthenTrap	Set whether Authentic Trap Error is permitted.	1 : Permitted 2 : Not permitted
NetWare		
NetWare protocal	Set whether NetWare protocol (IPX/SPX protocol) is used.	ENABLE : To use the function DISABLE: Not to use the function
Packet type	Designate the packet frame type used for NetWare. Make it identical with the frame type of the existing network.	ETHER-II: ETHERNET-II 802.2 : IEEE802.2 802.3 : IEEE802.3 SNAP : SNAP
NetWare mode	Choose Ethernet Board operating mode for NetWare from Print Serer Mode or Remote Printer Mode. This setting should coincide with that on NetWare Server.	PRINTER : Remote Printer Mode PSERVER : Print Server Mode

Print Server		
FSERVER name1-8	Enter File Server Name which administer Printer in Print Server Mode. A maximum of 8 file servers may be designated at max. The value should be in 31 or shorter alphabets or numbers.	Default value All None
Machine name	It is the "Print Server Name" which has been set at File Server in Print Server Mode. Make sure this name is identical with the "Print Server Name" set at File Server. In Remote Printer Mode, it is not used for NetWare. In both modes, this name will be displayed at the utility as the machine name. The value should be in 31 or shorter alphabets or numbers.	Default value "ML"+"last 6 digits of MAC Address" Default value Null (No password)
Password	This is a password to log in File Server in Print Server mode. Make sure this password is identical to that set at File Server. The value should be set in 31 or shorter alphabets or numbers.	Default value 4 sec.
Job polling interval	Set the interval to poll the job status. The smaller the value is, the more load on the network. The larger the value is, the worse the printing response. Normally, please use the default value. The value may vary from 2 to 255 seconds.	

Items	Function	Setup Value
Bindery mode	In Print Server mode,. when controlling only with NW4.1 NDS Mode, set Bindery Mode as [Disable]. When connecting via NW4.1 Bindery Service and NW3.1, always set Bindery Mode as [ENABLE]	ENABLE : To use the function DISABLE: Not to use the function
NDS tree	In Print Server Mode, enter NDS Tree Name. The File Server, where NetWare Print Server is attached, belongs to this NDS tree.	Default value None
NDS context	In Print Server Mode, enter the Context Name, with which the Print Server was created.	Default value None
Remote Printer		
PSERVER name1-8	Enter Print Server Name to be attached in Print Server Mode. 8 print servers may be designated at max. The value should be a maximum of 31 characters or numbers.	Default value All None
JOB timeout	This is the time from receiving the last print packet to relieving the Ethernet Board port at the end of the print job, in the Remote Printer Mode. When the set value is too short, the packet delay may make the printing stop on the way. Normally, please use the printer with the default value. The value may vary from 4 to 255 seconds.	Default value 10 sec.
EtherTalk		
EtherTalk protocol	Set whether EtherTalk protocol is used.	ENABLE : To use the function DISABLE: Not to use the function
Zone name	Enter EtherTalk zone name is required.	Default value " " (None)

Items	Function	Setup Value
Printer Port		
NetWare port name	For NetWare4.1, it is "Printer Name" of "Print Server Information" in PCONSOLE. For NetWare3.1, it is "Printer Configuration" name found in "Print Server Configuration" of "Print Server Information" in PCONSOLE. This name is used only for NetWare. The value should be a maximum of 31 alphanumerics characters.	Default value "ML"+"last 6 digits of MAC Address" + "-prn1"
EtherTalk port name	It is Printer Name used only for EtherTalk protocol. The value should bea maximum of 31 alphanumeric characters.	Default value "ML"+"last 6 digits of MAC Address"
BOJ string	Designate the character string transmitted to Printer before outputting directly to the output port (lp port). Set it when submitting such as control code before printing is required. The value should be in 31 or shorter alphabets or numbers. The special codes below may be assigned. \ b ASCII Back-space, code 0x08 \ t ASCII Tab, code 0x09 \ n ASCII Return, code 0x0a \ v ASCII Vertical tab, code 0x0b \ f ASCII Page down, code 0x0c \ r ASCII Esc code 0x0d \ xnn HEX code expressed as nn \ " " code 0x22 \\ \ code 0x5c	Default value " " (None)
EOJ string	Designate the character string transmitted to Printer after outputting directly to the output port (lp port). Set it when submitting such as control code after printing is required. The value should be a maximum of 31 alphanumeric characters. The special codes are the same for BOJ string.	Default value " " (None)
BOJ string(KANJI)	Designate the character string transmitted to Printer before outputting to the output port via KANJI filter(euc,sjis port). Set it when submitting such as control code before printing is required. The value should be a maximum of 31 alphanumeric characters. The special codes are the same for BOJ string.	Default value " " (None)
EOJ string(KANJI)	Designate the character string transmitted to Printer after outputting to the output port via KANJI filter(euc,sjis port). Set it when submitting such as control code after printing is required. The value should be a maximum of 31 alphanumeric characters. The special codes are the same for BOJ string.	Default value ¥x04

Items	Function	Setup Value
Printer type	Set Printer type for KANJI filter.	Fixed as PS(PostScript).
TAB size	Designate the character width to convert a tab code (0x09) into a half space (0x20), when outputting data via KANJI filter. If the width is set to 0, the tab transformation will not be conducted. The value may vary from 0 to 16.	Default value 8
Page width (letters in a line)	Set the page width when outputting via KANJI filter. The value may vary from 0 to 255.	Default value 78
Page length (lines in a page)	Set the page length when outputting via KANJI filter. The value may vary from 0 to 255.	Default value 66
Banner output	Select whether a banner page is output when printing with LPR or FTP. This setting is valid only for TCP/IP protocol.	YES : With Banner page NO : Without Banner page
Printer Trap		
Trap enable	Set whether Printer Trap is used.	ENABLE : To use this function. DISABLE : Not to use this function.
Trap type	Set the Local Trap and Global Trap.	LOCAL UDP IPX
Trap address(UDP)	Set the Trap Notice Address for UDP. Enter it in a decimal system as "###.###.###.###". When IP Address is 0.0.0.0, the trap will not be issued.	Default value 0.0.0.0
Trap address(IPX)	Enter the Trap Notice Address for IPX. Enter it as "Network Address (8 digits)+ Node Address (12 digits)". When it is 00000000:000000000000, the trap will not be issued.	Default value 00000000: 000000000000
Status		Note
Ready	Printer is on-line and ready to receive print data.	
Offline	Printer is off-line.	
Printer Error	Some printer error is caused. "Warming up" means Printer is getting ready for printing. Please wait for a moment.	Please confirm the message on Printer LCD.

Chapter

8

Troubleshooting

Fast Ethernet 7100e+

Troubleshooting

This chapter describes typical problems when using the Fast EtherNet and tips for solving them.

Problems during the self-diagnosis test and while printing the configuration contents

Printer does not print

· Check that DIP switch [3] (Configuration report) and [4] (Self-diagnosis test) of the Fast EtherNet are on. Turn the printer off before changing the DIP switch.

· If the printer is on, turn the printer off and then on again.

· Ensure the printer emulation is set to "PCL" or "Automatic".

NG is printed in the self-diagnosis test

If the ROM Check and RAM Check are NG

· Confirm that the Fast EtherNet is installed properly, then turn the printer off and then on again.

If the EEPROM Check is NG

· Confirm that the Fast EtherNet is installed properly, then turn the printer off and then on again.

· Turn the printer off, switch DIP switch [2] on and turn the printer on again. This will initialize the Fast EtherNet.

If the NIC Check is NG

· Confirm that the Fast EtherNet is installed properly, then turn the printer off and then on again.

· Confirm that the network cable is correctly connected. If possible, connect to the network of a different segment.

A Network Format Different Than the Format of the Network Connected is Printed

· Confirm that the network cable is installed, then turn the printer of and then on again.

· Change the network cable, then turn the printer off and then on again.

Problems printing via TCP/IP

Printer cannot find the Fast EtherNet

· If the printer is on, turn the printer off and then on again.

· Check if there is a response to ping.

· Check if the network cable is correctly connected. If needed, change the cable and try again.

· Run the Fast EtherNet self-diagnosis test, check if the values of the "IP Address", "Subnet Mask" and "Gateway Address" are correct. If they are incorrect, reset the relevant values.

· It is possible that the "TCP/IP protocol" of the Fast EtherNet is disabled. If it is, change it to "Enable" using the Fast EtherNet-related utility.

· Turn the printer off, switch on DIP Switch [2] of the Fast EtherNet and turn the printer on again, initialize the Fast EtherNet and reset the IP address.

· If DHCP, BOOTP and RARP are not used, ensure these features have been disabled on the Fast EtherNet.

Cannot print with lpr and ftp

· If the printer is on, turn the printer off and then on again.

· Check if there is a response to ping.

· Check if the network cable is correctly connected. If needed, change the cable and try again.

· Check if the host name and IP address of the Fast EtherNet are set in the workstation.

· Check if the printer port name of the Fast EtherNet is set in the workstation.

There are 3 port names – lp, euc and sjis. euc and sjis are specific to postscript printers. If a printer driver is used, lp should be set.

The user name on the banner page?

· If printing with LPR, the User name printed is "unknown" and the File name printed is the "Spool file name".

· If printing with FTP, the User name printed is the "User name typed in during the FTP login" and the File name printed is the "Transmitted file name". If the print directory name is indicated in the put command, the File name is not printed. The Printer printed is the "Logical directory name".

Problems printing via NetWare

Printer cannot find the Fast EtherNet

· If the printer is on, turn the printer off and then on again.

  · Check if the network cable is correctly connected. If needed, change the cable and try again.

  · If the utility related to the Fast EtherNet is used, check if the NetWare network number of the environment settings is a valid value. The Fast EtherNet cannot be identified unless a correct value is typed in. In addition, even in the case of a large-scale network environment, type in the NetWare network number in which the Fast EtherNet resides.

  · It is possible that the "NetWare protocol" of the Fast EtherNet is disabled. If it is, change it to "Enable" using the Fast EtherNet-related utility.

  · Turn the printer off, switch on DIP Switch [2] of the Fast EtherNet and turn the printer on again, initialize the Fast EtherNet and reset the NetWare Board name, etc.

The Fast EtherNet is identified by the Utility but not by the NetWare Server

<Remote Server Mode>

  · Check if the correct print server is operating on the file server.

  · Check if the "Print server name" operating on the file server and the "Print server name" set in the Fast EtherNet are identcial.

  · Check if the "Printer name" displayed in the print server monitor of the file server and the "NetWare port name" set in the Fast EtherNet are identical. If there are several Fast EtherNets, configure the settings so that the "NetWare port names" of two Fast EtherNets are not identical.

<Print Server Mode>

  · Check if the "File server name" used and the "File server name" set in the Fast EtherNet are identical.

  · Check if the "Printer name" set in the file server and the "NetWare port name" set in the Fast EtherNet are identical. If there are several Fast EtherNets, configure the settings so that no two "NetWare port names" of Fast EtherNets are identical.

  · Check if the "Machine name" of the Fast EtherNet is identical to the "Print server name" set in the file server.

Printer does not print

· Check if the network cable is correctly connected. If needed, change the cable and try again.

· If the printer is on, turn the printer off and then on again.

· Check that Fast EtherNet has connected to the file server.

· Has the printer driver been maped to the correct netware queue?

A PostScript Error Occurs If a Banner Page is Printed

· A PostScript banner page cannot be printed in the NetWare3.12 remote printer mode. If a PostScript printer is used, therefore, and a banner page is printed, "PostScript error" is displayed. Make sure to turn the banner output "Off" in the client's printing settings.

Trouble while using EtherTalk

Not identified by the Chooser and the Setup Utility

· If the printer is on, turn the printer off and then on again.

· Check if the network cable is correctly connected. If needed, change the cable and try again.

· In the case of a network residing in a zone, check if the correct zone name (the zone connected to the printer) is selected in the chooser. In addition, check if the zone name in the utility related to the Fast EtherNet is identical to the zone name set in the Fast EtherNet.

· Check if the "AppleTalk", displayed at the right bottom of the chooser, is "Enabled".

· Check if "Ethernet" is selected in the "AppleTalk" of the control panel. In some OS versions there is no "AppleTalk" but "Network". In such a case, check if "EtherTalk" is selected.

· Check if the print driver that responded to the printer onto which the Fast EtherNet is attached, is selected in the chooser.

· The EtherTalk protocol of the Fast EtherNet may have become disabled. In such a case, change it to "Enable" in the utility related to the Fast EtherNet.

· Print the content of the Fast EtherNet settings and confirm that the "EtherTalk port name" did not become blank.

· Turn the printer off, switch DIP switch [2] on and turn the printer on again, initialize the Fast EtherNet and reset the printer driver.

Trouble while using NetBEUI

The Fast EtherNet is not identified

· If the printer is on, turn the printer off and then on again.

· Check if the network cable is correctly connected. If needed, change the cable and try again.

· Check if "Microsoft network client" and "NetBEUI" have been added to the network section of the control panel.

· The factory setting of the workgroup name is "PrintServer" and the computer name is ML+ the last 6 digits of the Mac address.

· The computer name of the Fast EtherNet may have been changed to the same name as the computer name that resides on the network. Initialize the Fast EtherNet and make sure that there are no multiple computer names.

· The NetBEUI protocol of the Fast EtherNet may have become disabled. In such a case, change it to "Enable" in the utility related to the Fast EtherNet.

· Turn the printer off, switch DIP switch [2] on and turn the printer on again, initialize the Fast EtherNet and reset the printer driver.

Error writing to prn1

· The printer may have gone offline. Turn it online.

· The paper may have run out, leading to an error message. Add more paper + cancel the error.

· Another user may be printing. Print after the other user has finished printing.

Others

Changes the Kanji code, cannot print correctly

· Check the Kanji code used in the printing data. The Fast EtherNet responds to Soft JIS and EUC PostScript Kanji files.

Appendices

Appendices

Fast EtherNet 7100e+

Main Specifications

Item	Content
CPU	Falcon 33MHz
Network Interface	100BASE-TX
	10BASE-T
Network protocols	IPX/SPX (NetWare)
	Remote printer mode
	Print server mode
	Frame types: IEEE802.2, IEEE802.3, Ethernet-II, SNAP
	EtherTalk
	DDP, NBP, AEP, TRMP, ATP, PAP, ZIP, AppleTalk phase2
	TCP/IP
	FTP, LPD, TELNET, ARP, DHCP, BOOTP, RARP, ICMP, SNMP, HTTP
	NetBEUI
	SMB, NetBIOS
Functions	Banner print function (FTP, LPD)
	Kanji filter function (FTP, LPD)

IP Address Configuration Using DHCP, BOOTP, RARP

This Ethernet board supports DHCP, BOOTP, and RARP and can dynamically acquire its IP address at start-up. You must however have a DHCP, BOOTP or RARP server on your network to use this functionality.

Before configuration

In order to configure the DHCP server, BOOTP server or RARP server, there must be a super-user. If you do not have a super-user authorization, leave the configuration to the network manager.

Note✐

- · *Cannot be used if there is no DHCP server, BOOTP server or RARP server on the network.*

- · *If you type in a wrong IP address the network may go down or other severe damage may occur. Set the configuration only after consulting your network manager.*

Printer preparation

In order to use DHCP, BOOTP or RARP, you need to set DHCP/BOOTP or RARP to ENABLE on the Fast EtherNet. Use one of the following procedures to set up the Fast EtherNet.

Setting from utility

This section describes how to set up with the Standard Setup Utility for Windows. You can also use the Setup Utility for Macintosh, TELNET, etc., for this setting. Use the utility suitable for the environment of your network, referring to the following explanation.

The description begins at the point where the Standard Setup Utility has been started. For setting up the utility, refer to Chapter 7 Control of Fast EtherNet.
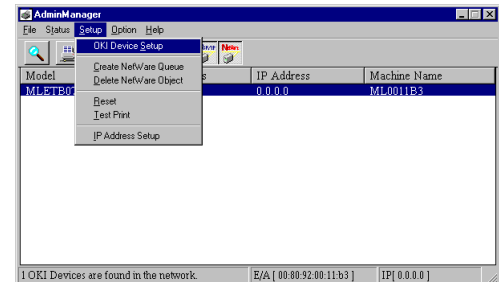
1   Referring to the Ethernet address, select the Fast EtherNet to be configured from the list.
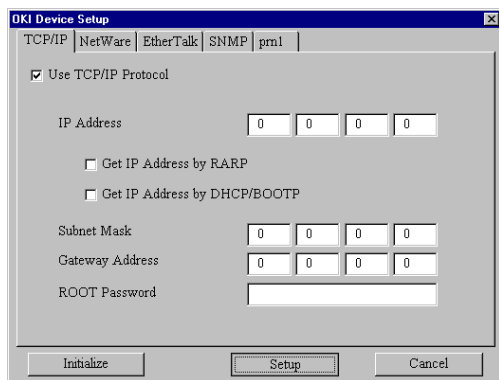
MEMO
✎   *The Ethernet address appears on the self-diagnostics test print for the Fast EtherNet*
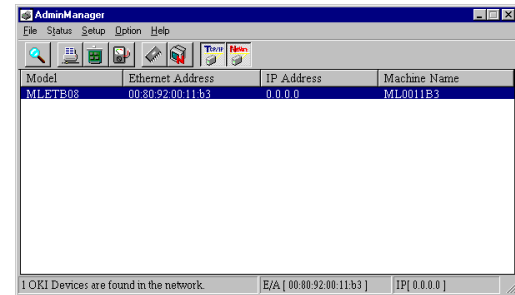
2   Select [OKI Device Setup] in the [Settings] menu.

3   Check [Use DHCP/BOOTP] or [Use RARP] in the TCP/IP setting window and click [Setup].

4   If the settings are correct, click [Yes]. The settings are transmitted to the Fast EtherNet.

Note✍ *At this point, the Fast EtherNet is still operating with the previous settings.*

---

5   To make the new settings take effect, click [Yes].
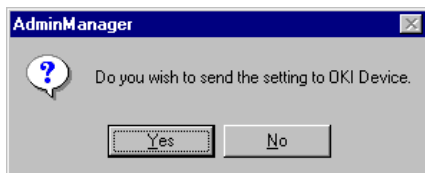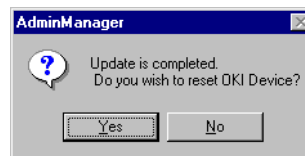
Note✍ *If you select [NO], the new settings will take effect when the printer is turned off and then back on again. You may need to power cycle the printer depending on the model.*

Configuration from TELNET

The Fast EtherNet can be configured using the TELNET related to the workstation.

In the following explanation, SunSolaris 2.4 is used as an example. The method of configuring each command may differ from one workstation to another. Refer to your workstation's manual.

1. Using the APR command, set a temporary IP address on the Fast EtherNet.

   Example: If the IP address is "192.168.20.127" and the Fast EtherNet address is "00:80:92:01:00:D2" [then enter]

   ```
   # arp –s 192.168.20.127 00:80:92:01:00:D2 temp
   ```

MEMO
✎ *The EtherNet address (MAC Address) is displayed in the print menu of the printer.*

2. Use the ping command to confirm the connection with the Fast EtherNet.

   Example: If the IP address is "192.168.20.127", [type]

   ```
   #ping 192.168.20.127
   ```

Note✏ *If there is no reply, then there is a problem with the IP address configured under Step 2 or with the condition of the network. Consult your network manager.*

3. Log into the Fast EtherNet using TELNET.

   For details, see (Using TELNET) (Page 109).

4. In the TCP/IP configuration screen, change the "DHCP/ BOOTP protocol" or "RARP protocol" to "Enable".

5. Logout from the Fast EtherNet.

   In order to enable new settings, turn the printer off and then on again.

Note✏ *If the printer is not turned off and then on again, the Fast EtherNet will continue to use the pre-transmission setting values. Make sure to turn the printer off and then on again.*

Setting through DHCP

DHCP is a protocol for dynamically assigning IP addresses to each host on a TCP/IP network. It can set subnet masks as well as IP addresses.

Note✐

- *This function is not available unless there is a DHCP server on the network.*

- *[DHCP/BOOTP protocol] for the Fast EtherNet needs to be set to [ENABLE]. If [DISABLE] has been selected, see " Preparation of Your Printer" to change the setting to [ENABLE].*

- *Configure on the DHCP server so that a fixed IP address is assigned to the Fast EtherNet . If you select an IP address at random, you cannot use the network for printing. For the procedure for assigning a fixed IP address, see the manual for the DHCP server.*

Operation of the following DHCP servers has been verified.

- *Windows NT Server4.0 DHCP server*
- *Windows NT Server4.0 DHCP relay agent*
- *Sun OS 4.1.3 + WIDE type DHCP version 1.3.6*

The board may not function normally on any other DHCP server.

The following description uses Windows NT Server4.0 DHCP server as an example.

1 Open [Network] in the [Control Panel].

2 Open the [Service] tab and check that [Microsoft DHCP server] is displayed. If it is not displayed, click [Add] and select [Microsoft DHCP server], then restart Windows NT4.0.
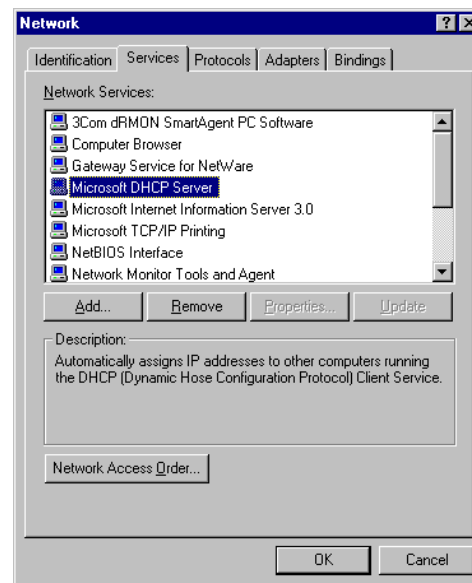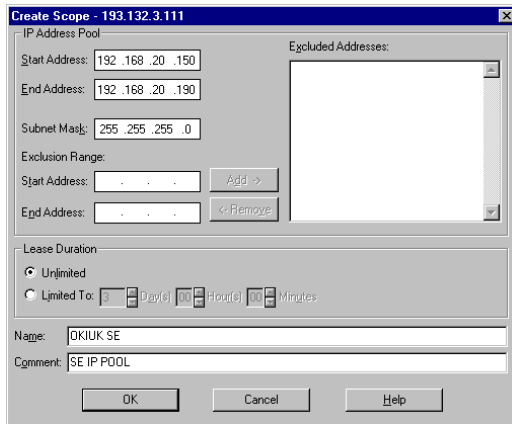

3 Click the [Start] button to start [DHCP Manager] form [Management Tools (common)] in [Program].

4　From the list of DHCP servers, click on a server for which you want to create a scope.
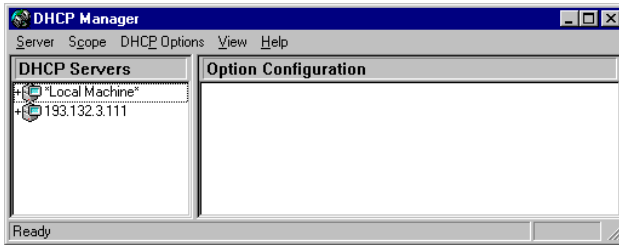
5　Select [Create] from the [Scope] menu, set [IP address pool] and then click [OK].

6　Select [Add Preselection] form the [Scope] menu, input the [IP address], [Unique ID] and [Client name] for the printer and click [Add]. Click [Close] to go back to the origianl screen.
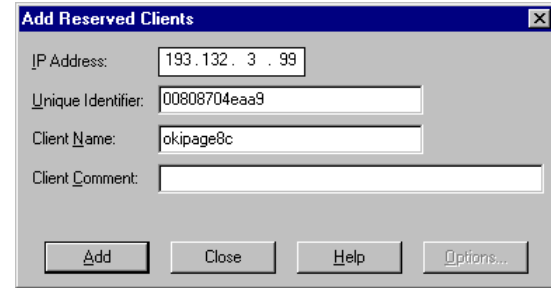
Note✒

Be sure to use [Add Preselection] to configure an IP address. If you do not, you cannot use TCP/IP for printing.

•　*Input the Ethernet address of the Fast EtherNet into [Unique ID] and a name of your choice into [Client name].*

•　*The Ethernet address for the Fast EtherNet appears on the self-diagnostics test print.*

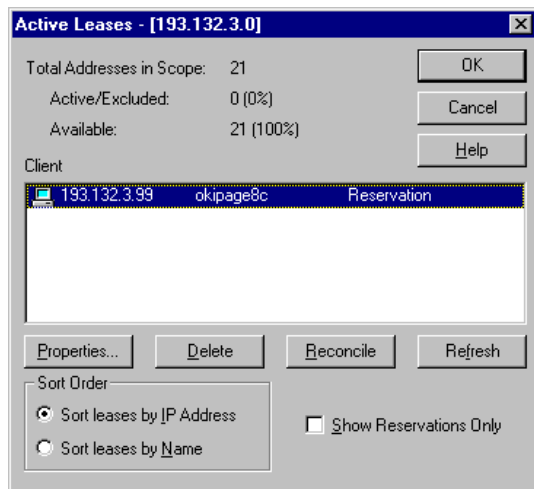7   Select [Activate] in the [Scope] menu to make the created scope active. If you select [Active Resource] in the [Scope] menu, you can check the state of your printer.

Active Leases - [193.132.3.0]

Total Addresses in Scope: 21
    Active/Excluded: 0 (0%)
    Available: 21 (100%)

Client

    ▪ 193.132.3.99   okipage8c   Reservation

[Properties...]   [Delete]   [Reconcile]   [Refresh]

Sort Order
    ⦿ Sort leases by IP Address
    ○ Sort leases by Name   ☐ Show Reservations Only

[OK]   [Cancel]   [Help]

8   Switch the printer on.

Setting from BOOTP

BOOTP is a protocol for assigning IP addresses which have been registered on a BOOTP server to each host on the TCP/IP network. The printer will acquire an IP adddress when it is turned on.

Note✒

- *This function is not available unless there is a BOOTP server on the network.*

- *[DHCP/BOOTP protocol] on the Fast EtherNet needs to be set to [ENABLE]. If it is set to [DISABLE], change the setting to [ENABLE], referring to Printer Preparation.*

The following description uses the HP-UX 9.x BOOTP server as an example. If you use any other OS, make the same settings according to the manual for your workstation.

1 Register the IP address of the Ehternet board and host name in the /etc/hosts file.

Example: If the IP Address is "192.168.20.127" and host name is "OP8C".

```
192.168.20.127 OP8C
```

2 Add the following settings to the /etc/bootptab file.
Example: If the IP Address is "00:80:92:00:11:BC"

```
OP8C:\          ──────────  The host name registered
                            in /etc/hosts
 ht=ether:\     ──────────  Set the hardware type
                            to "ether"
 ha=0080920011bc:\ ───────  Ethernet address
 ip=192.168.20.127:\ ─────  IP address
 sm=255.255.255.0:\ ──────  Subnet mask
 gw=192.168.20.254:\ ─────  Gateway
```

3 Add the following settings to the /etc/inetd.conf file.

```
bootps dgram udp wait root /etc/bootpd bootpd
```

4 Reboot the inetd.

```
# kill -1 1
```

5 Switch the printer on.

Setting through RARP

RARP is a protocol for assigning IP addresses, which have been registered on a RARP server to each host on the TCP/IP network. The printer will acquire an IP address when it is turned on.

Note✐

- *This function is not available unless there is a RARP server on the network.*

- *[RARP protocol] of the Fast EtherNet needs to be set to [ENABLE]. If it is set to [DISABLE], change the setting to [ENABLE], referring to Printer Preparation.*

The following description uses the SunOS4.1.x RARP server as an example. If you use any other OS, including the SystemV series, make the same settings according to the manual of your workstation.

1   Register the IP address of the Ehternet board and host name in the /etc/hosts file

Example: If the IP Address is "192.168.20.127" and host name is "OP8C".

```
192.168.20.127 OP8C
```

2   Add a combination of the Ethernet address and host name to the /etc/ethers file. The host name is the same as that registered in the /etc/hosts file.

Example: If the Ethernet address of the Fast EtherNet is 00:80:92:00:11:BC.

```
00:80:92:00:11:BC OP8c
```

3   Start RARPD.

```
#rarpd -a
```

Note✐

- *For starting the rarpd, see the manual for your workstation.*

- *It is useful to set up your workstation so that it will start up from a file such as /etc/rc, as the rarpd is required at each start-up.*

4   Switch the printer on.

7100e+

Fast EtherNet

User Manual

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